

STEREO RECEIVER

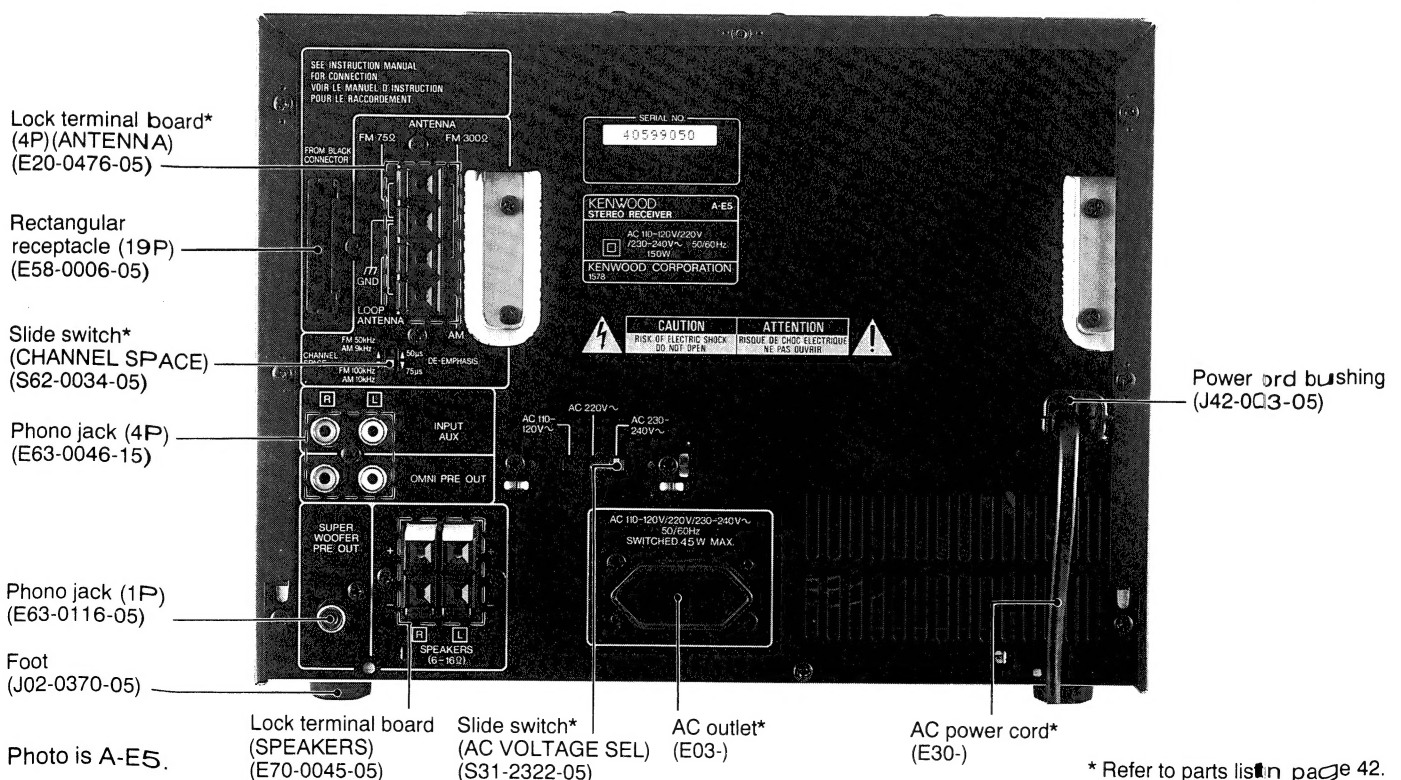
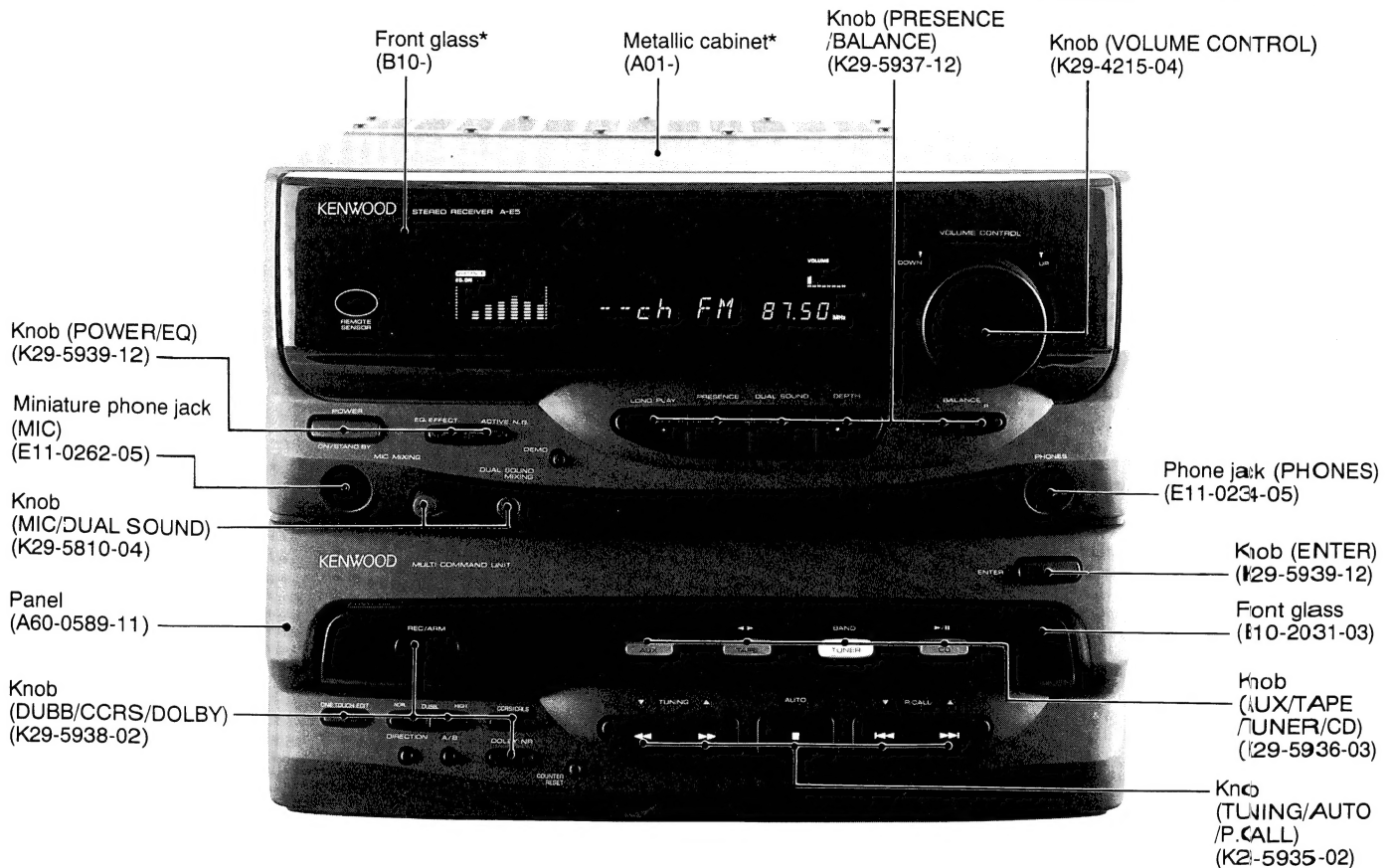
A-E5/L

SERVICE MANUAL

(UD-502/552)

KENWOOD

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B51-4900-00 (K) 3891



* Refer to parts list in page 42.


A-E5/L

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ACCESSORIES

• FM indoor antenna 1
(T90-0182-15)

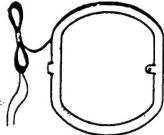


• AC plug adaptor 1
(E03-0115-05)

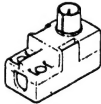


*Except for the U.S.A., Canada, Europe,
U.K. and Australia. For the unit with a
European AC plug in areas other than
Europe.*

• AM loop antenna ass'y 1
(T90-0195-05)

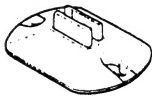


• Antenna adaptor 1
(T90-0198-05)

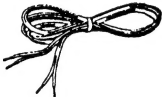


For U.K. and Europe.

Loop antenna stand
(J19-3645-05)




• Speaker cords 2
(E31-5479-08)



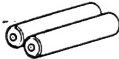
For U.K. and Europe.

• Remote control unit (RC-E5) 8
(A70-0981-05)



Battery cover
(A09-0106-08)

• Batteries 2



**Speaker cords are packed with the Speakers.*

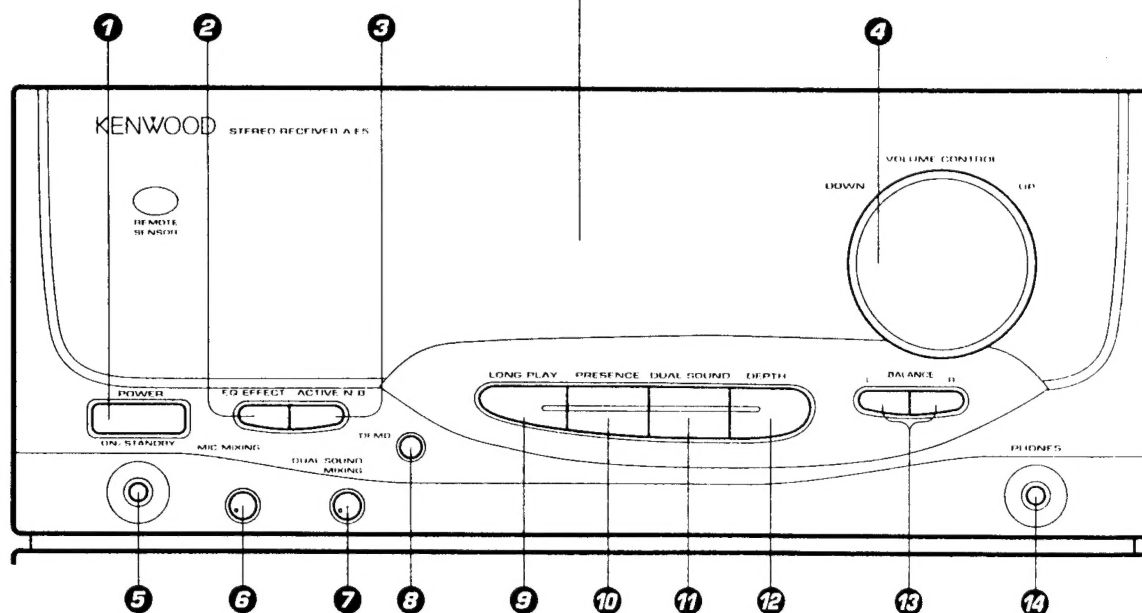
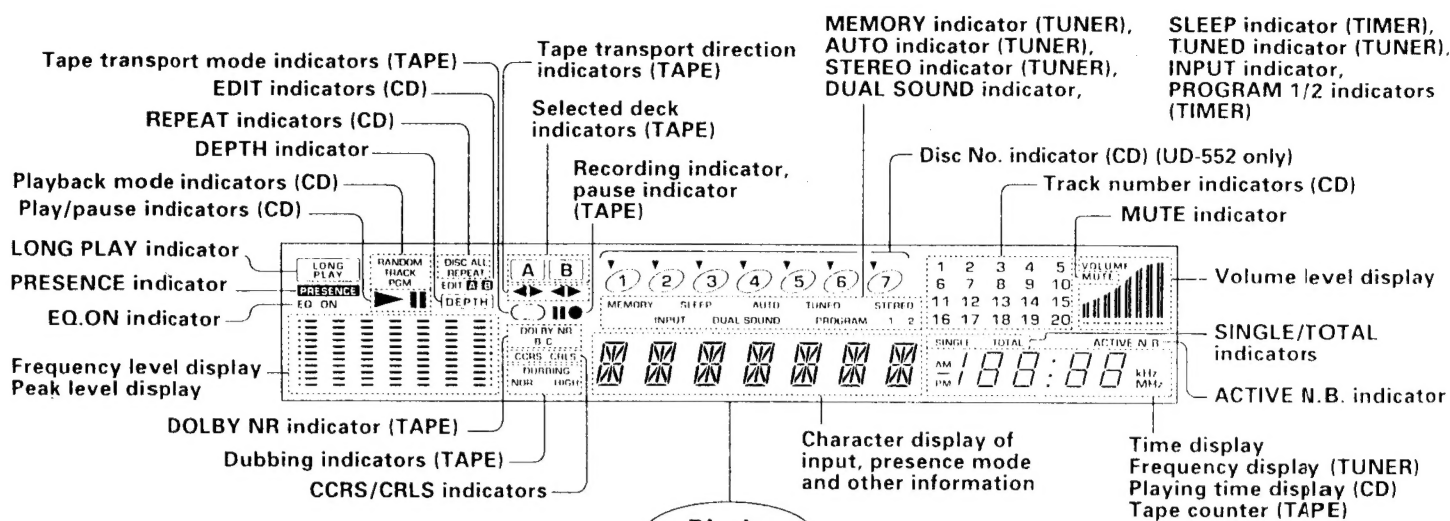
System configuration

System	Receiver/Multicommand	Cassette deck/CD player	System carton box (Parts No.)	Speaker (Other package)
UD-502	A-E5/L	X-E5	H60-0225-04	LS-E5
UD-552	A-E5/L	X-ME5	H60-0268-04 (K) H60-0227-04 (other)	LS-E5

2

CONTROL

RECEIVER SECTION



1 POWER key

Press to turn the power of the system ON/OFF.

2 EQ. EFFECT key

Press to select an equalizer curve.

3 ACTIVE N.B. key

4 VOLUME CONTROL knob

5 MIC jack

6 MIC MIXING knob

7 DUAL SOUND MIXING knob

Adjust the volume balance between the environmental sound and music.

8 DEMO key

Press to start demonstration.

9 LONG PLAY mode key

Press to let the sound play for long hours.

10 PRESENCE key

Press for presence play.

11 DUAL SOUND key

Press for Environmental Sound play or presence mode play.

12 DEPTH key

Press to add a depth in the sound field.

13 BALANCE keys (LEFT, RIGHT)

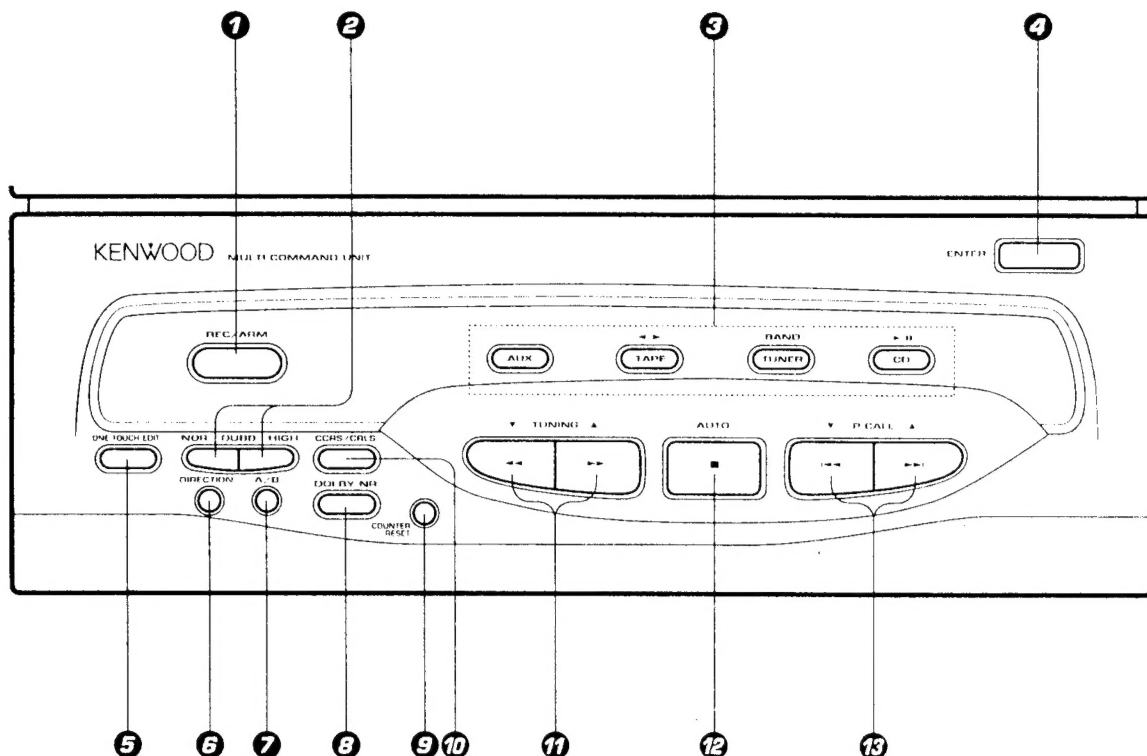
Press to adjust the balance between the left and right volume levels.

14 PHONES jack

Insert headphones into this jack.

CONTROL

MULTI COMMAND UNIT SECTION



1 REC/ARM key

2 DUBB. keys (HIGH, NOR.)

Press for tape dubbing

3 Input selector keys

CD: Functions as the play/pause key.

TAPE: Functions as the play key.

Pressing during playback changes the tape transport direction.

TUNER: Functions as the BAND key.

AUX: Press to play the AUX input source.

4 ENTER key

5 ONE TOUCH EDIT key

Press for simplified CD recording.

6 DIRECTION switch key

7 Deck switch keys (A/B)

Press to select the deck to be operated.

8 DOLBY NR key

9 COUNTER RESET key

Press to reset the tape counter to 0000.

10 CCRS/CRLS key

11 Fast winding (TUNING) keys

CD, TAPE: Function as the fast forward/backward keys.

TUNER: Function as the TUNING keys.

When power is OFF:

Used to set the timer.

12 Stop (AUTO) key

CD, TAPE: Functions as the stop key.

TUNER: Functions as the AUTO key.

When power is OFF:

Activates the clock adjustment mode.

13 Skip (P.CALL) keys

CD: Function as the skip keys.

TAPE: Function as the skip key to search the beginning of music programs.

TUNER: Function as the P.CALL keys.

When power is OFF:

Used to adjust the clock or timer operation.

DISASSEMBLY FOR REPAIR

Remove the case in advance.

A) Rear panel

- 1 Disconnect CN8 of X09-402 (C/7).
- 2 Remove the 12 screws (❶) of the Rear panel.

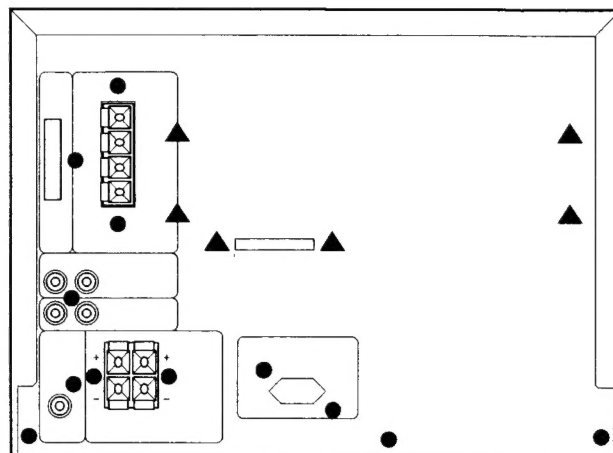
B) TUNER PCB X05-4460-XX / X05-4472-70

- 1 Disconnect CN1.
- 2 While pushing the unit holder, pull the PCB.

C) Front panel

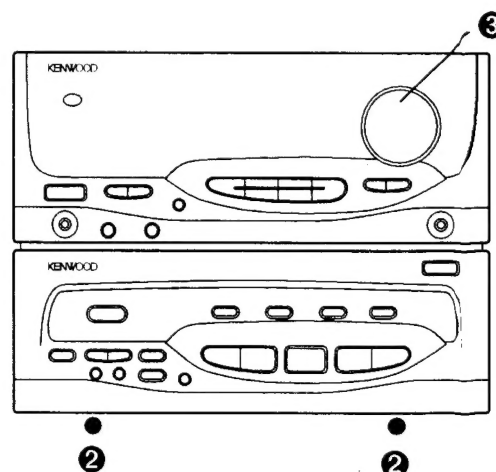
- 1 Remove the two screws (❷) of the lower side of the panel.
- 2 Remove the left part of the panel first. Right part, CN7 and CN6 (X09-404 (B/7)) are connected, so remove the panel carefully.
- 3 When removeing the PCB, remove the VOLUME CONTROL knob (❸) by loosening the Allen screws.

Caution : If Front panel is removed, you can not operate A-E5/L. Don't remove the Front panel when checking the PCB.

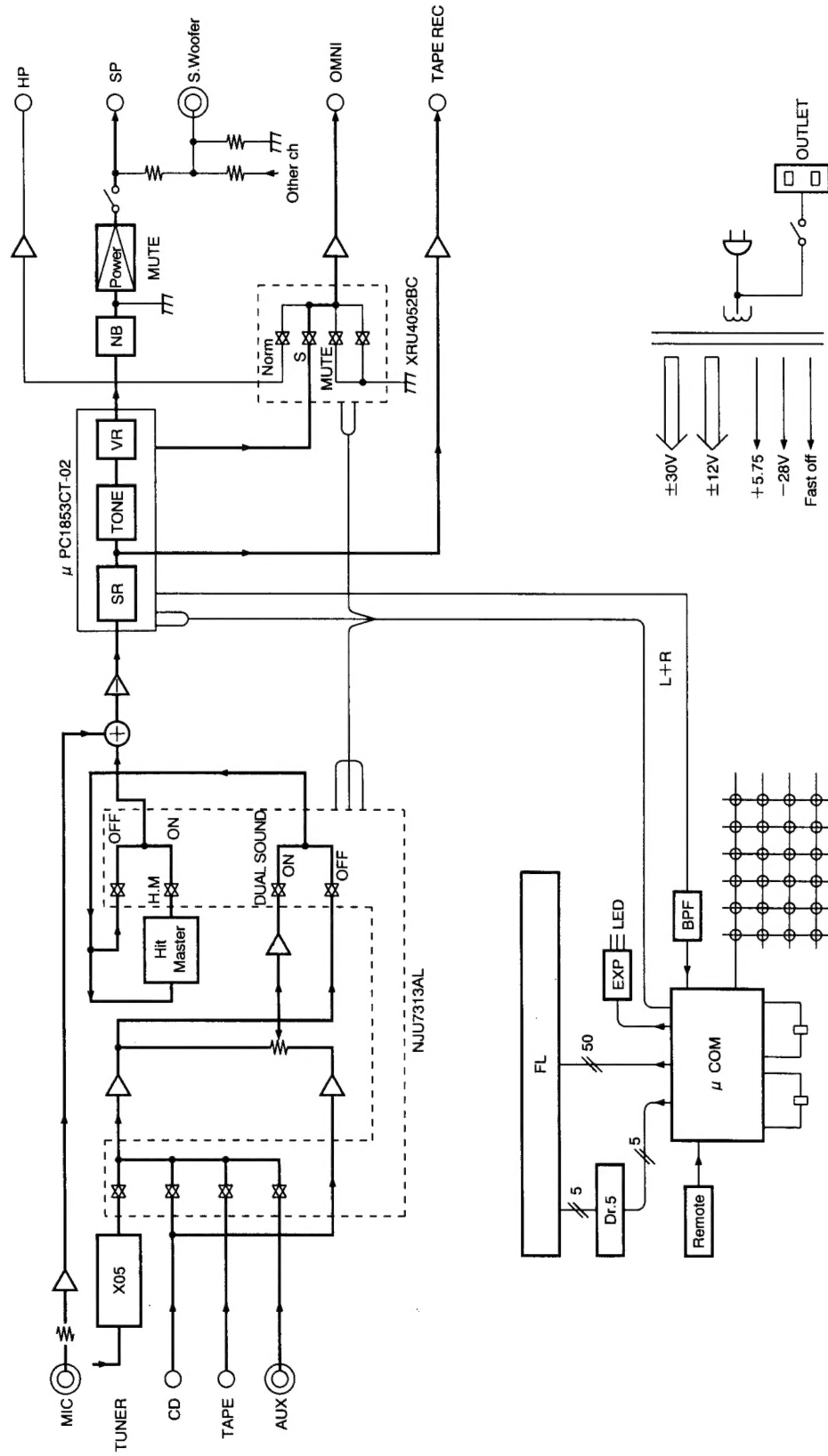


●:❶ x12

▲:No need to remove



BLOCK DIAGRAM



CIRCUIT DESCRIPTION

μ-com: M381907MA-074FP (X14: IC4)

1. Test mode

1-1 Test mode with the main unit keys

(1) Setting procedure

While pressing the CD key, plug the AC power cord to the power outlet.

(2) Cancellation

Unplug the AC power cord. The initial setting will take effect and the test mode will be canceled.

(3) Description

1. Auto POWER ON

- When AC power cord is plugged while pressing the CD key, the POWER will turn ON and all function will be at the initial setting. (Input selector=TUNER)

2. ALL LED ON mode

- When The AC power cord is plugged while pressing the CD key, all the LEDs will turn ON.
- Two colours LED change to GRN and RED alternately. (250ms interval)
- When some main unit key is pressed, ALL LED ON mode will be canceled and all function will return the LEDs to normal.

3. Others

- The operation of main unit keys and remote controller keys during the test mode, refer to the table below.
- The MUTE function does not work during the test mode. (When POWER ON, MUTE is effective.)
- Test mode is not canceled when the input selector is moved TUNER to another source.
- Headphone detection is effective during the test mode.

1-2 Test mode with serial communications

(1) Setting procedure

- Enter the TEST ON code. (C27FH)

(2) Cancellation

- Enter the TEST OFF code (C27EH) (Not initialized)
- Unplug the AC power cord. (Initialized)

(3) Description

- The MUTE function does not work during the serial test mode.
- When the codes are received, the same codes are transmitted.
- Codes received during the serial test mode are effective irrespective of the display mode.
- All the LEDs will turn ON. ALL LED ON is cancelled by inputting the cancelling code and returned the LEDs to normal.
- Headphone detection is effective during the test mode.
- Inputting codes of numeric key call memory. (+10 key code is as same function as normal tuner function.)
- Headphone detection is effective during the serial test mode.

	Key	Description		Key	Description
1	POWER	Normal operation	16	EQ.	Normal operation
2	VOLUME UP	Normal operation	17	O.T.E.	Tone max.
3	VOLUME DOWN	Normal operation	18	CCRS	Tone min.
4	CD	Normal operation	19	ENTER	Tone flat
5	TUNER	Normal operation	20	DUAL SOUND	Normal operation
6	TAPE	Normal operation	21	DEPTH	Normal operation
7	AUX	Normal operation	22	BALANCE L	Balance L max
8	■	Normal operation	23	BALANCE R	Balance R max
9	◀	Normal operation	24	REC	Balance center
10	▶	Normal operation	25	DOLBY NR	MUTE ON/OFF
11	◀▶	Normal operation	26	COUNTER RESET	All goes off ON/OFF
12	▶▶	Normal operation	27	ACTIVE N. B.	Normal operation
13	DUBB. NORMAL	Master VOL min.	28	DIRECTION	HIT MASTER ON
14	DUBB. HIGH	Master VOL max.	29	A/B	HIT MASTER OFF
15	PRESENCE	Normal operation			

CIRCUIT DESCRIPTION

Amplifier and Tuner serial test code (C 2 XXH) NEW

TYPE FUNC	AMP								TUNER							
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	POWER OFF									0						
1	POWER ON									1						
2			HIT MASTER OFF						TMUTE OFF	2						
3	CD		HIT MASTER ON						TMUTE ON	3						
4	TUNER								AUTO STEREO	4						
5	TAPE 1 (TAPE A)								MONO	5						
6									TUNED OFF	6						
7	AUX				BALANCE Lch MAX				TUNED ON	7						
8					BALANCE Lch/Rch CENTER					8						
9					BALANCE Rch MAX			Full LEDs off OFF		9						
A								Full LEDs off ON		+10						
B								Full LEDs lights OFF		BAND FM						
C								Full LEDs lights ON		BAND AM/MW						
D	MUTE ON							AMP INITIAL		BAND TV/LW						
E	OMI MUTE ON	SPEAKER OFF (SP A OFF)	DUAL SOUND OFF					AMP serial test OFF		AUTO TUNING DOWN						
F	MUTE ALL OFF	SPEAKER ON (SP A ON)	DUAL SOUND ON					AMP serial test ON		AUTO TUNING UP						

CIRCUIT DESCRIPTION

SURROUND & GE serial test code (C 3 XXH) NEW

TYPE		SURROUND										GE					
FUNC		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0																	
1																	
2																	
3																	
4						DEPTH OFF											
5						DEPTH ON											
6										TONE flat							
7										TONE max.							
8										TONE min.							
9																	
A																	
B						PRESENCE ARENA											
C						PRESENCE JAZZ CLUB											
D						PRESENCE STADIUM											
E																	
F																	

CIRCUIT DESCRIPTION

Electronic Volume serial test code (C 4 XXH) NEW

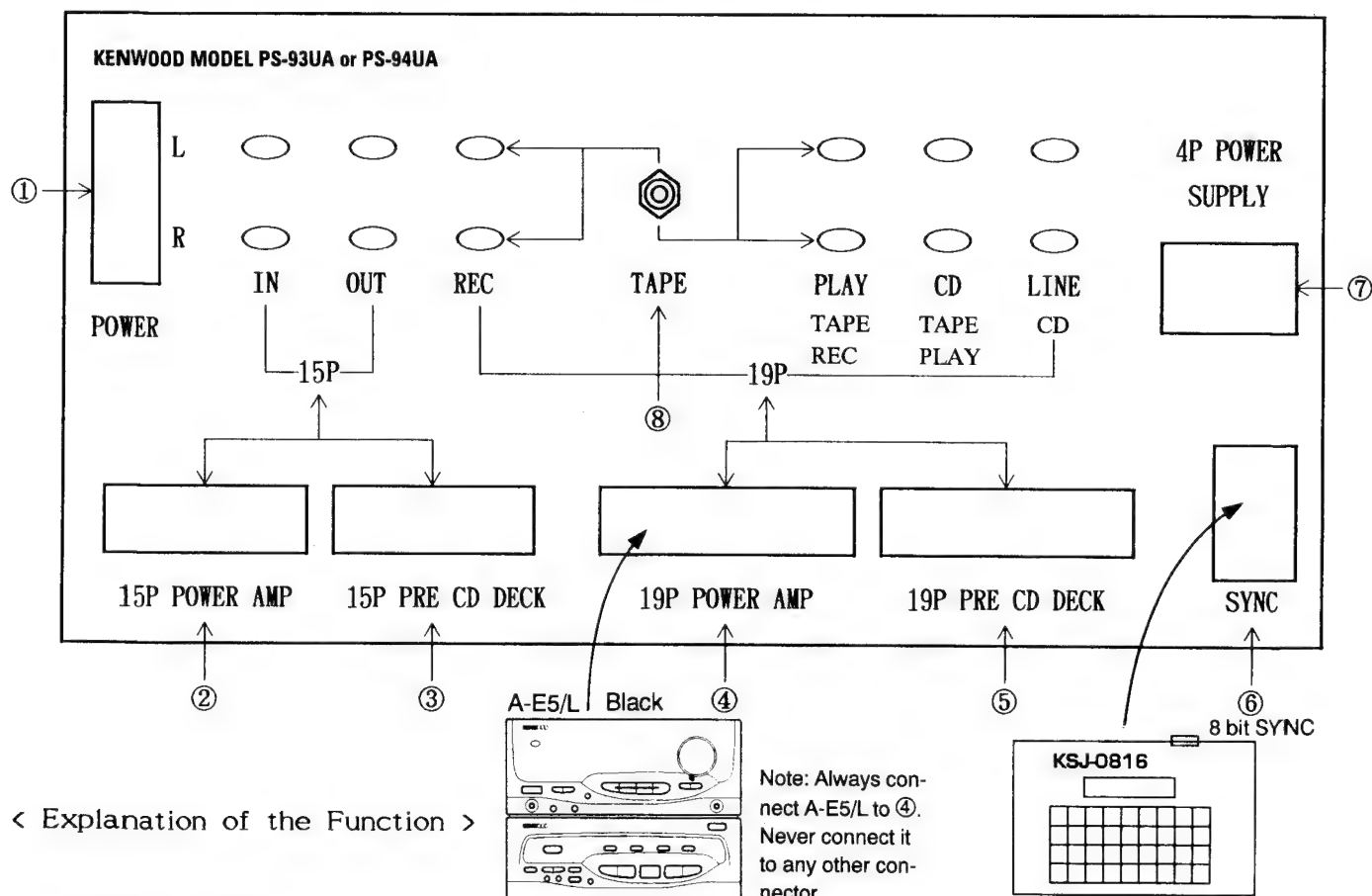
TYPE FUNC	SURROUND										GE					
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	VOLUME 0	VOLUME 16	VOLUME 32	VOLUME 48												
1	VOLUME 1	VOLUME 17	VOLUME 33	VOLUME 49												
2	VOLUME 2	VOLUME 18	VOLUME 34	VOLUME 50												
3	VOLUME 3	VOLUME 19	VOLUME 35	VOLUME 51												
4	VOLUME 4	VOLUME 20	VOLUME 36	VOLUME 52												
5	VOLUME 5	VOLUME 21	VOLUME 37	VOLUME 53												
6	VOLUME 6	VOLUME 22	VOLUME 38	VOLUME 54												
7	VOLUME 7	VOLUME 23	VOLUME 39	VOLUME 55												
8	VOLUME 8	VOLUME 24	VOLUME 40	VOLUME 56												
9	VOLUME 9	VOLUME 25	VOLUME 41	VOLUME 57												
A	VOLUME 10	VOLUME 26	VOLUME 42	VOLUME 58												
B	VOLUME 11	VOLUME 27	VOLUME 43	VOLUME 59												
C	VOLUME 12	VOLUME 28	VOLUME 44	VOLUME 60												
D	VOLUME 13	VOLUME 29	VOLUME 45													
E	VOLUME 14	VOLUME 30	VOLUME 46													
F	VOLUME 15	VOLUME 31	VOLUME 47													

CIRCUIT DESCRIPTION

PS-93UA or PS-94UA Operation Manual

Power supply for the audio model UD series.

Audio signal lines in 15P and 19P flat cable are connected to RCA connectors.



< Explanation of the Function >

① POWER SWITCH

This switch should be turned on when using the 15 pin PRE CD DECK ③, the 19 pin PRE CD DECK ⑤ and the 4 pin power supply ⑦.

② 15 PIN POWER AMP

Connect to a system which require the 15 pin flat cable for connection, when check the power amp. section.

AC power source is not output from the terminal.

The signals are input and output to the RCA terminals and SYNC terminal on the front panel.

(ex : A-711, A-722, A-A7, B-922, B-A9, etc)

CIRCUIT DESCRIPTION

③ 15 PIN PRE CD DECK

Connect to a system which require the 15 pin flat cable for connection, when check the functions except power section AMP.

The AC power are supplied to the pin No.12-13 for 9 V and the pin No.14-15 for 16 V from the terminal.

The signal flow are same as 15 pin power AMP terminal.

(ex : DP-711, DP-722, DP-A7, C-922, X-711, X-722, X-A7, etc)

④ 19 PIN POWER AMP

Connect to a system which require the 19 pin flat cable for connection, when check the power AMP section.

The AC power is not supplied in the terminal.

The signals are input and output to the RCA terminal on the front panel.

(ex : A-B7, A-B3, B-B9, A-E5, A-E7, B-E9, etc)

⑤ 19 PIN PRE CD DECK

Connect to a system which require the 19 pin flat cable for connection, when check the component except power AMP. This terminal have the 4 system AC power supplies which is located to the pin No.13 to pin No.19.

(ex : X-B9, X-B5, X-B3, C-B9, DP-B5, DP-MB5, X-E5, X-ME5, X-E7, X-ME7, DP-E9, X-E9, C-E9 etc)

⑥ SYNC TERMINAL

Connect to the SYNCHRO CHECK JIG KSJ-0816. It can be controled the system code 8 bit or 16 bit to the test set.

⑦ 4 PIN POWER SUPPLY

Output terminal for AC 9 V and AC 16 V.

It can be used supply the AC power to DECK, CD, TUNER for MIDI system.

⑧ TAPE SWITCH

The signal for deck of 19 pin terminal are share a well with the REC and PLAY. So, please change the TAPE SW when DECK mode is PLAY or STOP then turn to the play, when DECK mode is REC or REC pause then turn to the REC.

(ex : X-B9, X-B5, X-B3, X-E9)

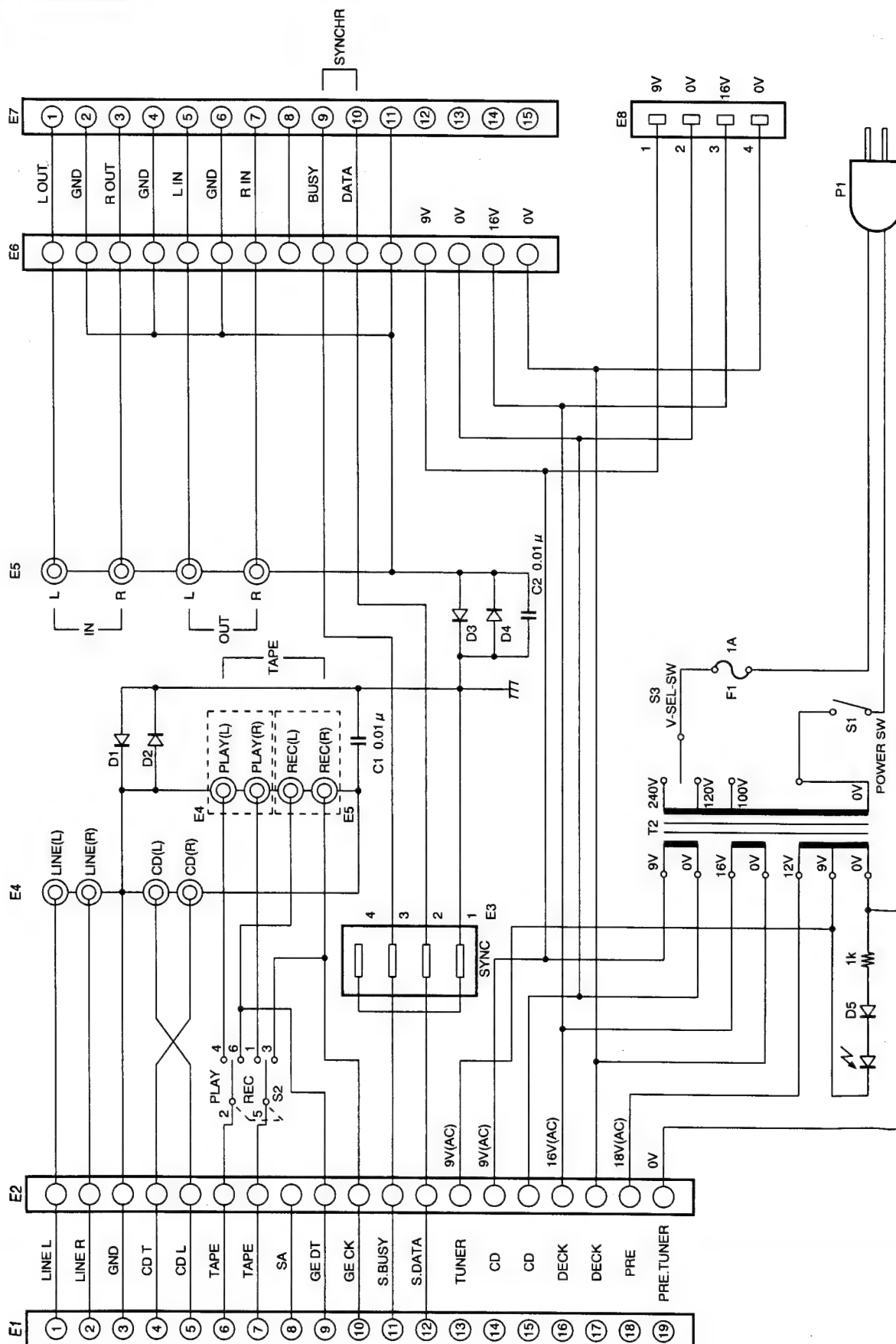
< NOTE >For limited power supply's capacity, maximum connection is only one sets.

Do not connect a set together both with the 15 pin terminal and 19 pin terminal.

In/output signals will shift as specified in the caution label when A-E5, A-E7, X-E5, X-ME5, X-E7, and X-ME7.

CIRCUIT DESCRIPTION

BLOCK DIAGRAM



CIRCUIT DESCRIPTION

1-3 Backup operation

The receiver microcomputer goes into backup mode when the AC power goes off. Therefore, the last state when the power was turned off is stored the next time the power is turned on.

1) Backup mode

Each 1 ms, the receive microcomputer checks the CE port and if CE=low, it goes into backup mode. When it goes into backup mode, it carries out the series of operations below, then stops the main clock (8.38 MHz). It does not come out of backup mode until a reset is input.

2) Operations upon entry into backup mode

- Interrupts inhibited
- Mute on
- Fluorescent display drive stopped
- A/D stopped
- SIO stopped
- Subclock (32 kHz) stopped
- Interrupt enable flags all cleared
- Hard timer stopped
- Port data set to all 0s
- Port mode set
(Setting the input ports to input mode and the input/output ports and the output ports to output mode is easy.)
- Data set in backup check RAM (cleared in test mode)
- Main clock stopped (to go into stop mode)

3) Data restoration upon reset

When the system is reset, if the backup check RAM value matches the value set when the system went into backup mode, then the modes below are restored.

- AMP -
- Power mode
(If the last state was power on, the power is turned on when the system is reset.)

(If the last state was power off, the power is turned off when the system is reset.)

- Last selector mode
- Master volume
- EQ. and Presence modes
- Active N.B. state
- Last clock data
(However, the clock is not counted and the last time data blinks.)
- Program setting contents and setting mode
- Tuner -
- Last band and preset channels and frequencies
- Last frequency and preset channels for each band
- Preset memory data (Ch. 1 - Ch. 20)
- AUTO/MANUAL (MONO) mode

1-4 Default values

The microcomputer RAM is all cleared (initialized) to initialize the system (set).

1-5 Initialization conditions

- When the AC power is turned on while pressing the main unit ENTER key
- During serial test mode, when serial code C27DH is received
- When the power cord is unplugged during test mode entered with a key on the main unit or during serial test mode
- When the backup data is destroyed

Under the above conditions, the receiver microcomputer is initialized. When it is initialized, it goes into the states in the table below (default states).

Default states

System	Power off
Clock Prog.	Clock stop (0:00 a.m.) Prog. operation mode:OFF Prog. 1: ON=0:00AM OFF=0:00AM MOD=PLAY SOC=TUNER (Ch 1) Prog. 2: ON=0:00AM OFF=0:00AM MOD=PLAY SOC=TUNER (Ch 1)
Amp	VOLUME: 7SEG=5 (μPC1853 VOL data=8) Selector: TUNER EQ.:OFF PRESENCE:OFF LONG PLAY:OFF ACTIVE N.B.:OFF MUTING:OFF
Tuner	Band:FM Last band FM: P.CH=--CH FREQ=min (76.0 MHz or 87.5 MHz) AM (MW): P.CH=--CH FREQ=min (530 kHz or 531 kHz) LW: P.CH=--CH FREQ=min (153 kHz) P. CH memory Ch. 1 - Ch. 20: Test frequency Tuning mode:AUTO (AUTO STEREO)

CIRCUIT DESCRIPTION

1-6 Timer operation

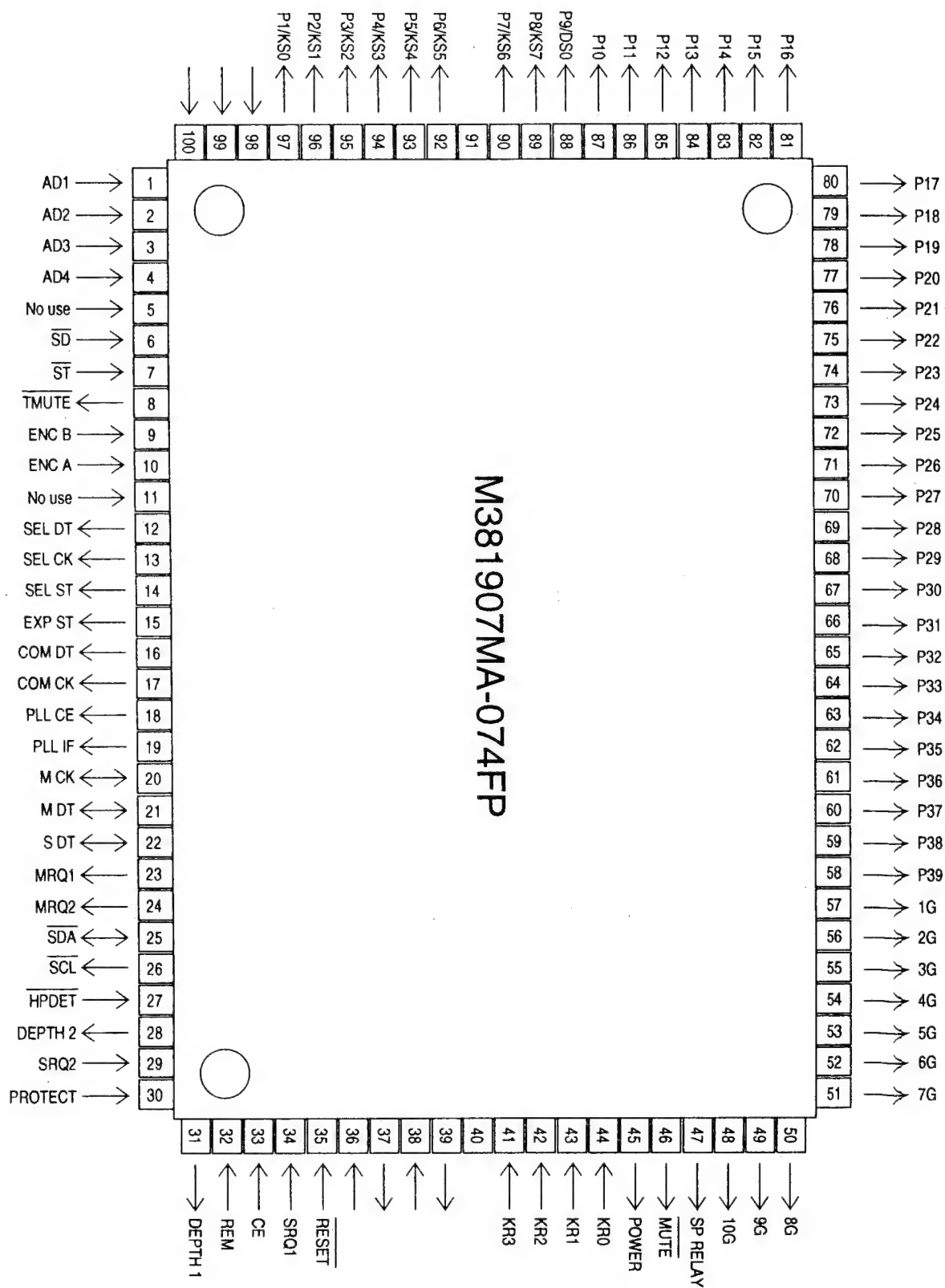
There are two program timers, Prog. 1 and Prog. 2. There are three execution modes: Prog. 1 only execution, Prog. 2 only execution, and Prog. 1 and Prog. 2 execution. The system is switched among these execution modes by pressing the ►► (EXEC.) key with the power off.

Each program timer operates while the power is off when its execution mode is on. However, if the on time and the off time are the same, they do not operate even if their execution mode is on.

When the power is turned on with the program timer, the display for whichever of Prog. 1 or Prog. 2 is operating blinks on/off every 500 ms. When the mode switches to normal power on, this blinking stops. In the current specifications, since program timer control becomes impossible when the power is on, when the power is turned on with a program timer, this is indicated. The only way to leave the mode of the power having been turned on by a program timer is to turn the power off, then on again.

CIRCUIT DESCRIPTION

Terminal connection



CIRCUIT DESCRIPTION

1-7 Terminal description

Pin No.	Pin Name	Name	I/O	Description	Note
1	P 77/AN 7	AD 1	(A/D)	SPEANA SIGNAL LEVEL	A/D : 63 Hz
2	P 76/AN 6	AD 2	(A/D)	SPEANA SIGNAL LEVEL	A/D : 400 Hz
3	P 75/AN 5	AD 3	(A/D)	SPEANA SIGNAL LEVEL	A/D : 2.5 kHz
4	P 74/AN 4	AD 4	(A/D)	SPEANA SIGNAL LEVEL	A/D : 16 kHz
5	P 73/AN 3		I	NO USE	
6	P 72/AN 2	$\overline{\text{SD}}$	I	SD DETECT	H : no tuned L : tuned
7	P 71/AN 1	$\overline{\text{ST}}$	I	STEREO DETECT	H : monoral L : stereo
8	P 70/AN 0	$\overline{\text{TMUTE}}$	O	TUNER MUTE CONTROL	H : tuner mute OFF L : tuner mute ON
9	PB 3	ENCB	I	ENCORDER B SIGNAL	
10	PB 2/DA	ENCA	I	ENCORDER A SIGNAL	
11	P 57/SRDY 3/AN 15		I	NO USE	
12	P 56/SCLK 3/AN 14	SELDT	O	TC 9164 DATA	
13	P 55/SOUT 3/AN 13	SELCK	O	TC 9164 CLOCK	
14	P 54/SIN 3/AN 12	SELST	O	TC 9164 STROBE	
15	P 53/SRDY 2/AN 11	EXPST	O	M 66310 STROBE	
16	P 52/SCLK 2/AN 10	COMDT	O	M 66310/LC 7218 DATA	
17	P 51/SOUT 2/AN 9	COMCK	O	M 66310/LC 7218 CLOCK	
18	P 50/SIN 2/AN 8	PLLCE	O	LC 7218 CE	
19	P 67/SRDY 1/CS /SCLK 12	PLLIF	O	LC 7218 DO	
20	P 66/SCLK 11	MCK	I/O	μCOM - μCOM MASTER CLOCK	
21	P 65/SOUT 1	MDT	I/O	μCOM - μCOM MASTER DATA/SDATA	
22	P 64/SIN 1	SDT	I/O	μCOM - μCOM SLAVE DATA/SBUSY	
23	P 63/CNTR 1	MRQ 1	O	μCOM - μCOM MASTER REQUEST 1 (CD)	
24	P 62/CNTR 0	MRQ 2	O	μCOM - μCOM MASTER REQUEST 2 (DECK)	
25	P 61/PWM	$\overline{\text{SDA}}$	I/O	μPC 1853 DATA (I ² B)	
26	P 60	$\overline{\text{SCL}}$	O	μPC 1853 CLOCK (I ² B)	
27	P 47/T 3 OUT	$\overline{\text{HPDET}}$	I	HEAD PHONE DETECT	H : headphone OFF L : headphone ON
28	P 46/T 2 OUT	DEPTH 2	O	DEPTH CIRCUIT CONTROL 2	H : omni circuit ON L : omni circuit OFF
29	P 45/INT 1/ZCR	SRQ 2	I	μCOM - μCOM SLAVE REQUEST 2 (DECK)	
30	P 44/INT 4	PROTECT	I	PROTECTION DETECT	H : protection L : normal
31	P 43/INT 3	DEPTH 1	O	DEPTH CIRCUIT CONTROL 1	H : depth circuit ON L : depth circuit OFF
32	P 42/INT 2	REM	I	REMOCON SIGNAL	
33	P 41	CE	I	CHIP ENABLE	H : enable L : disable
34	P 40/INT 0	SRQ 1	I	μCOM - μCOM SLAVE REQUEST 1 (CD)	
35	$\overline{\text{RESET}}$	$\overline{\text{RESET}}$	I	RESET (μCOM HARD RESET)	
36	PB 1/XCIN		I	32.768 kHz CRYSTAL	
37	PB 0/XCOUT		O	32.768 kHz CRYSTAL	
38	XIN		I	8.38 MHz CERAMICS	

CIRCUIT DESCRIPTION

Pin No.	Pin Name	Name	I/O	Description	Note
39	XOUT		O	8.38 MHz CERAMICS	
40	VSS		—	GND (μCOM POWER SUPPLY)	
41	P 27	KR 3	I	KEY RETURN 3	
42	P 26	KR 2	I	KEY RETURN 2	
43	P 25	KR 1	I	KEY RETURN 1	
44	P 24	KR 0	I	KEY RETURN 0	
45	P 23/DIG 19	POWER	O	POWER RELAY CONTROL	H : power relay ON L : power relay OFF
46	P 22/DIG 18	MUTE	O	MUTE CONTROL	H : mute OFF L : mute ON
47	P 21/DIG 17	SPRELAY	O	SPEAKER RELAY CONTROL	H : speaker relay ON L : speaker relay OFF
48	P 20/DIG 16	10 G	O	FL GRID (10 G)	
49	P 17/DIG 15	9 G	O	FL GRID (9 G)	
50	P 16/DIG 14	8 G	O	FL GRID (8 G)	
51	P 15/DIG 13	7 G	O	FL GRID (7 G)	
52	P 14/DIG 12	6 G	O	FL GRID (6 G)	
53	P 13/DIG 11	5 G	O	FL GRID (5 G)	
54	P 12/DIG 10	4 G	O	FL GRID (4 G)	
55	P 11/SEG 41/DIG 9	3 G	O	FL GRID (3 G)	
56	P 10/SEG 40/DIG 8	2 G	O	FL GRID (2 G)	
57	P 7/SEG 39/DIG 7	1 G	O	FL GRID (1 G)	
58	P 6/SEG 38/DIG 6	P 39	O	FL SEGMENT (P 39)	
59	P 5/SEG 37/DIG 5	P 38	O	FL SEGMENT (P 38)	
60	P 4/SEG 36/DIG 4	P 37	O	FL SEGMENT (P 37)	
61	P 3/SEG 35/DIG 3	P 36	O	FL SEGMENT (P 36)	
62	P 2/SEG 34/DIG 2	P 35	O	FL SEGMENT (P 35)	
63	P 1/SEG 33/DIG 1	P 34	O	FL SEGMENT (P 34)	
64	P 0/SEG 32/DIG 0	P 33	O	FL SEGMENT (P 33)	
65	P 37/SEG 31	P 32	O	FL SEGMENT (P 32)	
66	P 36/SEG 30	P 31	O	FL SEGMENT (P 31)	
67	P 35/SEG 29	P 30	O	FL SEGMENT (P 30)	
68	P 34/SEG 28	P 29	O	FL SEGMENT (P 29)	
69	P 33/SEG 27	P 28	O	FL SEGMENT (P 28)	
70	P 32/SEG 26	P 27	O	FL SEGMENT (P 27)	
71	P 31/SEG 25	P 26	O	FL SEGMENT (P 26)	
72	P 30/SEG 24	P 25	O	FL SEGMENT (P 25)	
73	P 97/SEG 23	P 24	O	FL SEGMENT (P 24)	
74	P 96/SEG 22	P 23	O	FL SEGMENT (P 23)	
75	P 95/SEG 21	P 22	O	FL SEGMENT (P 22)	
76	P 94/SEG 20	P 21	O	FL SEGMENT (P 21)	
77	P 93/SEG 19	P 20	O	FL SEGMENT (P 20)	
78	P 92/SEG 18	P 19	O	FL SEGMENT (P 19)	
79	P 91/SEG 17	P 18	O	FL SEGMENT (P 18)	
80	P 90/SEG 16	P 17	O	FL SEGMENT (P 17)	

CIRCUIT DESCRIPTION

Pin No.	Pin Name	Name	I/O	Description	Note
81	P 87/SEG 15	P 16	O	FL SEGMENT (P 16)	
82	P 86/SEG 14	P 15	O	FL SEGMENT (P 15)	
83	P 85/SEG 13	P 14	O	FL SEGMENT (P 14)	
84	P 84/SEG 12	P 13	O	FL SEGMENT (P 13)	
85	P 83/SEG 11	P 12	O	FL SEGMENT (P 12)	
86	P 82/SEG 10	P 11	O	FL SEGMENT (P 11)	
87	P 81/SEG 9	P 10	O	FL SEGMENT (P 10)	
88	P 80/SEG 8	P 9/DS 0	O	FL SEGMENT (P 9)/DIODE SCAN 0	
89	PA 7/SEG 7	P 8/KS 7	O	FL SEGMENT (P 8)/KEY SCAN 7	
90	PA 6/SEG 6	P 7/KS 6	O	FL SEGMENT (P 7)/KEY SCAN 6	
91	VCC		—	VDD (μ COM POWER SUPPLY)	
92	PA 5/SEG 5	P 6/KS 5	O	FL SEGMENT (P 6)/KEY SCAN 5	
93	PA 4/SEG 4	P 5/KS 4	O	FL SEGMENT (P 5)/KEY SCAN 4	
94	PA 3/SEG 3	P 4/KS 3	O	FL SEGMENT (P 4)/KEY SCAN 3	
95	PA 2/SEG 2	P 3/KS 2	O	FL SEGMENT (P 3)/KEY SCAN 2	
96	PA 1/SEG 1	P 2/KS 1	O	FL SEGMENT (P 2)/KEY SCAN 1	
97	PA 0/SEG 0	P 1/KS 0	O	FL SEGMENT (P 1)/KEY SCAN 0	
98	VEE		—	−30 V (μ COM POWER SUPPLY)	
99	AVSS		—	GND (A/D REFERENCE VOLTAGE)	
100	VREF		—	+5 V (A/D REFERENCE VOLTAGE)	

ADJUSTMENT

X05-4472-70 (E, T type)

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION SELECTOR: FM							
1	DISCRIMINATOR	(A) 98.0MHz 1kHz, ± 75 kHz dev 60dB μ (ANT input)	Connect a DC voltmeter between TP3 and TP4. (X05-)	AUTO or MONO 98.0MHz	L3 (X05-)	0V	(a)
					L4 (X05-)	Minimum distortion.	
2	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ± 68.25 kHz dev Selector: L or R Pilot: ± 6.75 kHz dev. 60dB μ (ANT input)	(B)	98.0MHz	IFT (W02-)	Minimum distortion. (L or R)	
3	SEPARATION	(C) 98.0MHz Stereo signal 60dB μ (ANT input)	(B)	AUTO 98.0MHz	VR3 (X05-)	Minimum crosstalk.	
4	TUNING LEVEL	(A) 98.0MHz 0 dev 14dB μ (ANT input) 75 Ω 18dB μ (ANT input) 300 Ω	(B)	AUTO or MONO 98.0MHz	VR1 (X05-)	Adjust VR1 and stop at the point where ED1 (TUNED) goes ON.	
AM SECTION SELECTOR: AM(MW)							
(1)	TUNING LEVEL	(D) 1008 kHz 20 dB μ (ANT input)	(B)	1008 kHz	VR2 (X05-)	Adjust VR2 and stop at the point where ED1 (TUNED) goes ON.	

X05-446X-XX (ENGLISH)

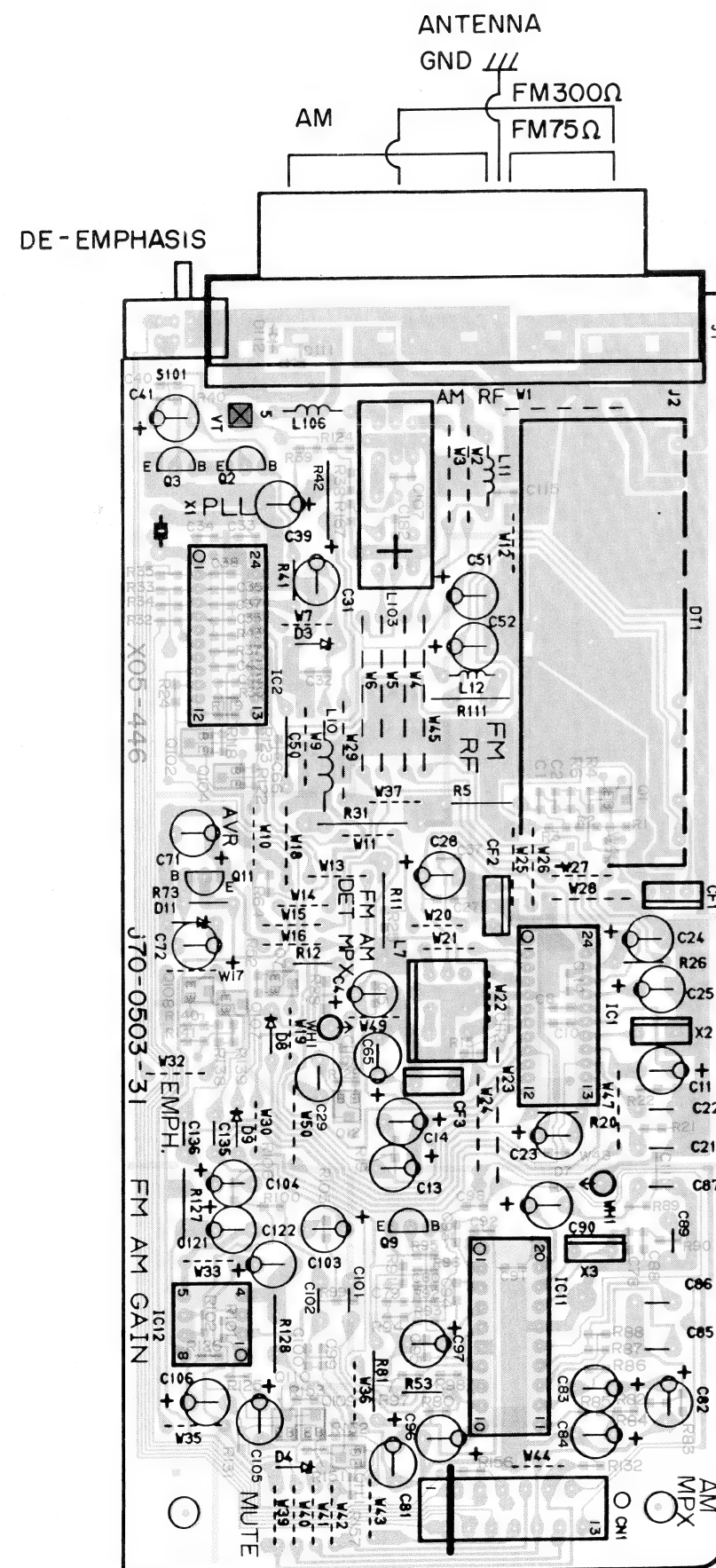
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION Unless otherwise specified, the individual switches should be set as following: BAND: FM							
1	DISTORTION (STEREO)	(C) 98.0MHz 1kHz, ± 68.25 kHz dev Selector: L or R 60dB μ (ANT input)	(B)	AUTO 98.0MHz	IFT (W02-)	Minimum distortion.	

X05-446X-XX (ESPAÑOL)

N.º	ÍTEM	AJUSTES DEE ENTRADA	AJUSTES DE SALIDA	AJUSTES DEL SINTONIZADOR	PUNTOS DE ALINEACIÓN	ALINEACIÓN PARA	FIG.
SECCIÓN DE FM A menos que se especifique otra cosa, los controles individuales deberán ajustarse de la forma siguiente: BAND: FM							
1	DISTORSIÓN (ESTÉREO)	(C) 98,0MHz 1kHz, $\pm 68,25$ kHz des Selector: L o R 60dB μ (entrada de ANT)	(B)	AUTO 98,0MHz	IFT (W02-)	Distorsión mínima.	

PC BOARD (Component side view)

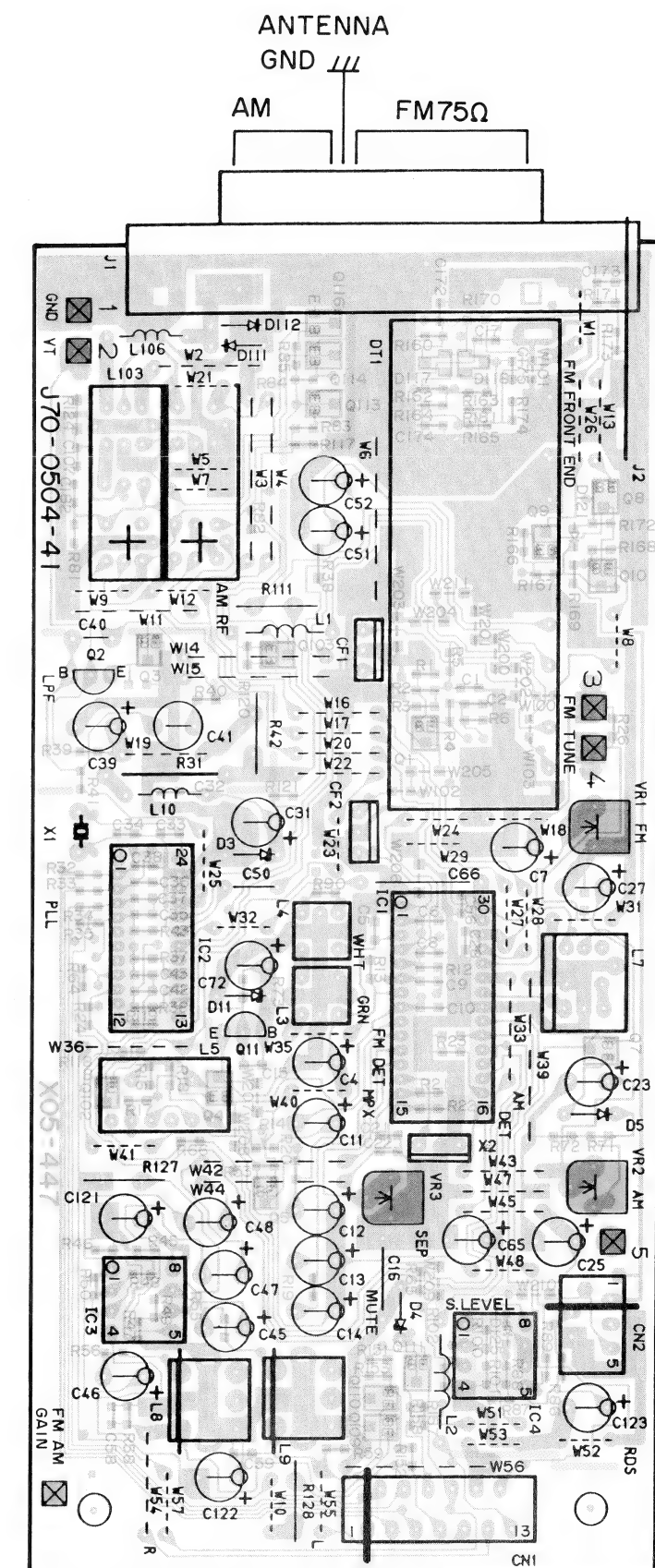
Tuner unit (X05-4460-XX)



23

Refer to the schematic diagram for the values of resistors and capacitors.

Tuner unit (X05-4472-70) T, E type



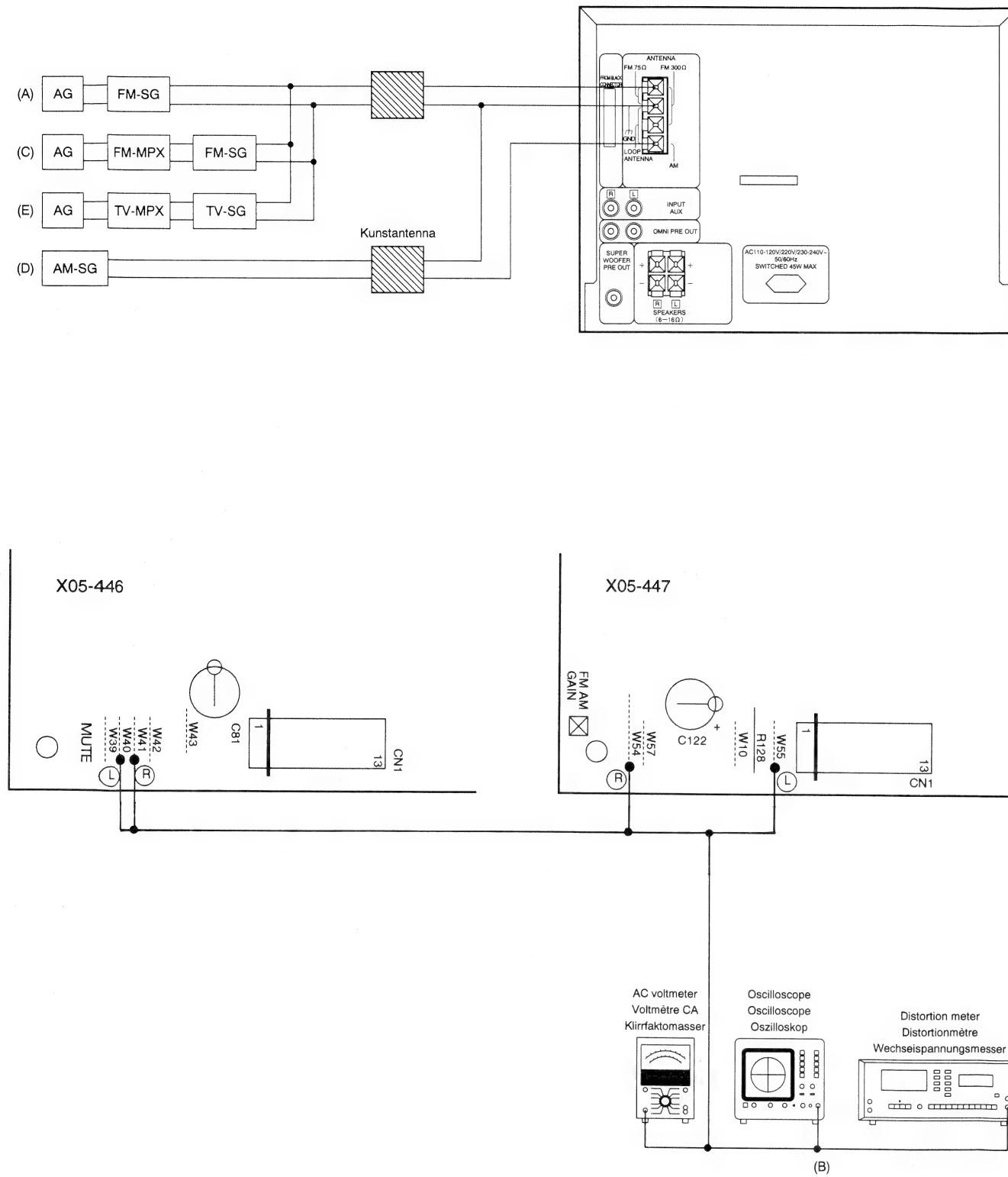
24

Refer to the schematic diagram for the values of resistors and capacitors.

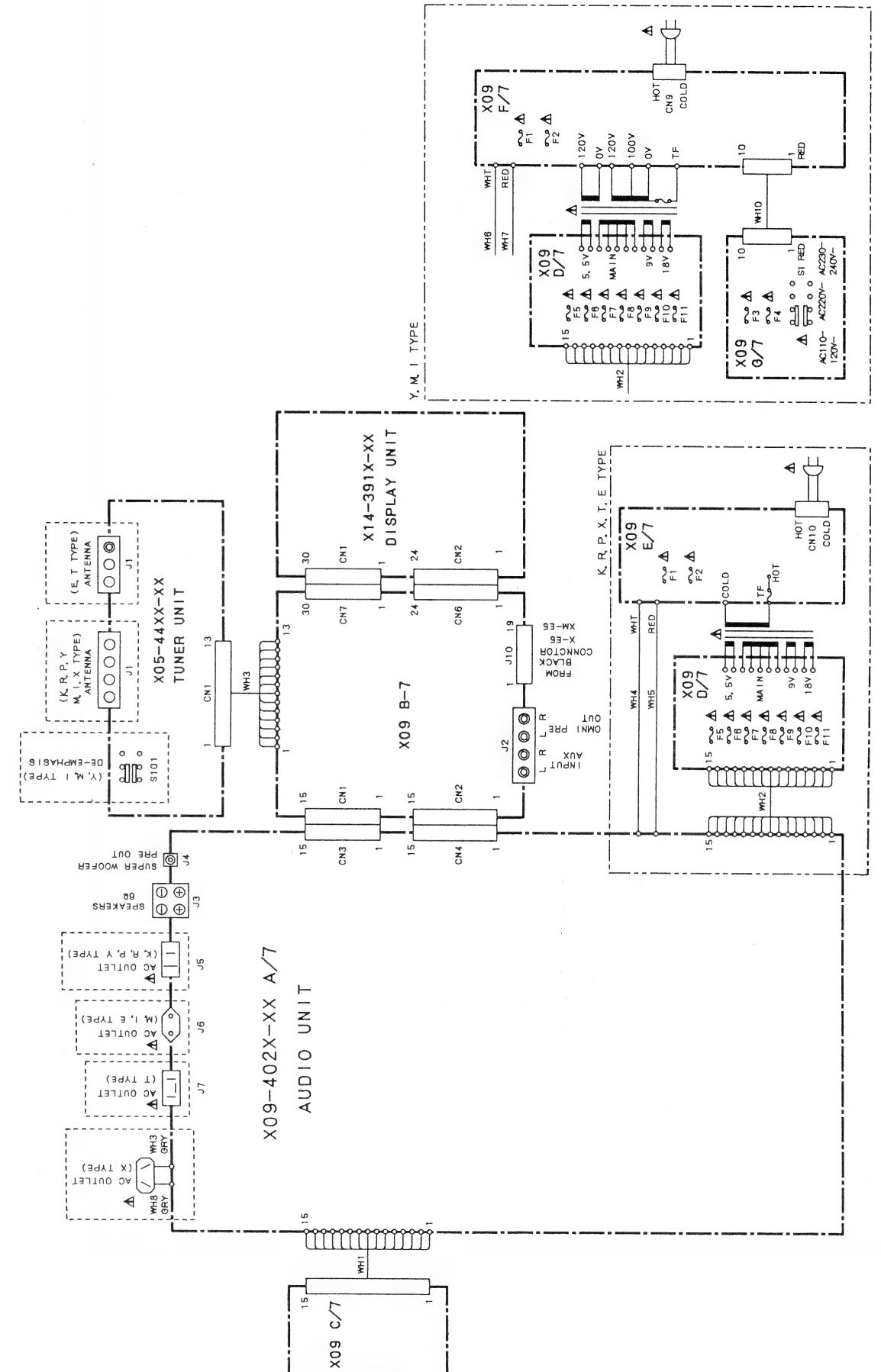
A-E5/L

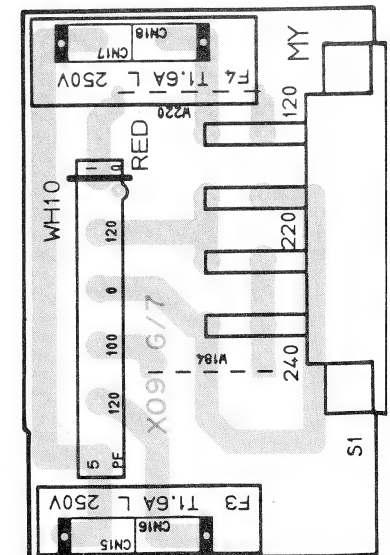
A-E5/L

ADJUSTMENT



WIRING DIAGRAM



Display unit (X14-391X-XX)

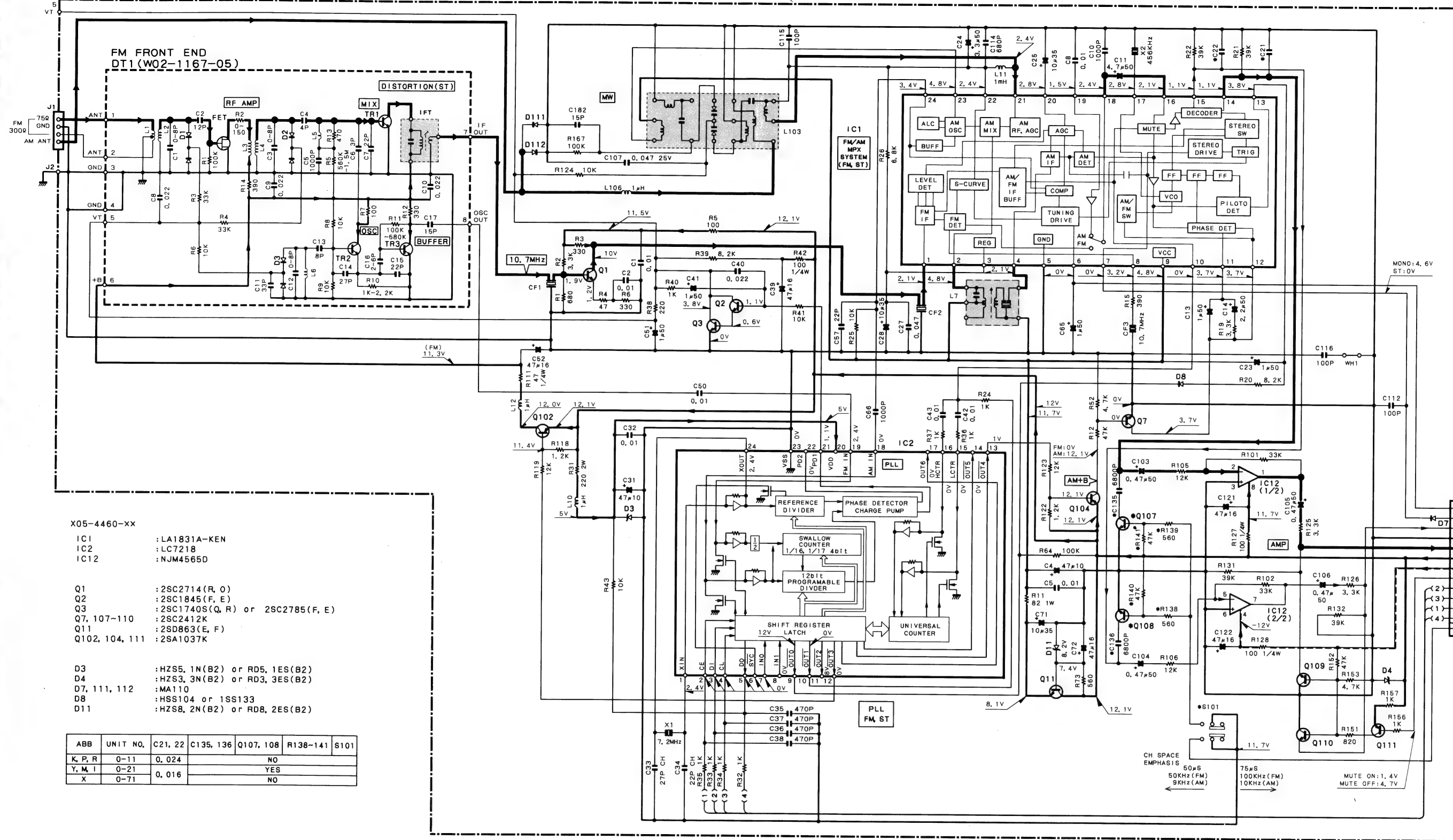
AC230-240V ~ | AC110-120V ~
AC220V ~

1

1



X05-4460-XX TUNER UNIT 11(K, P, R TYPE) 21(Y, M, I TYPE) 71(X TYPE)

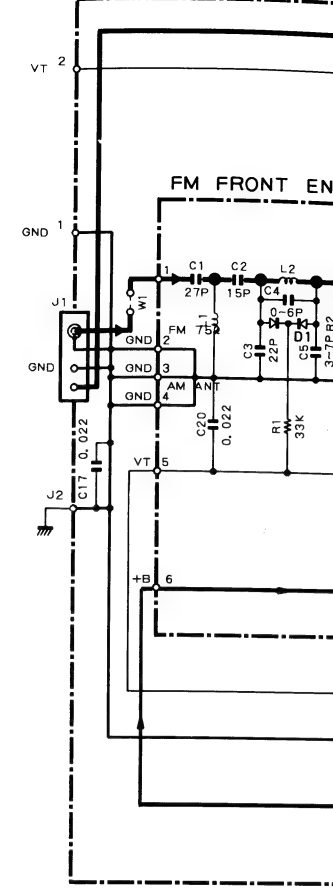


X05-4460-XX

- IC1 : LA1831A-KEN
 IC2 : LC7218
 IC12 : NJM45650
- Q1 : 2SC2714(R, O)
 Q2 : 2SC1845(F, E)
 Q3 : 2SC1740S(Q, R) or 2SC2785(F, E)
 Q7, 107-110 : 2SC2412K
 Q11 : 2SD863(E, F)
 Q102, 104, 111 : 2SA1037K
- D3 : HZS5, 1N(B2) or R05, 1ES(B2)
 D4 : HZS3, 3N(B2) or R03, 3ES(B2)
 D7, 111, 112 : MA110
 D8 : HSS104 or 1SS133
 D11 : HZS8, 2N(B2) or R08, 2ES(B2)

ABB	UNIT NO.	C21, 22	C135, 136	Q107, 108	R138-141	S101
K, P, R	0-11	0.024		NO		
Y, M, I	0-21	0.016		YES		
X	0-71			NO		

X05-4442-70 (T, E)



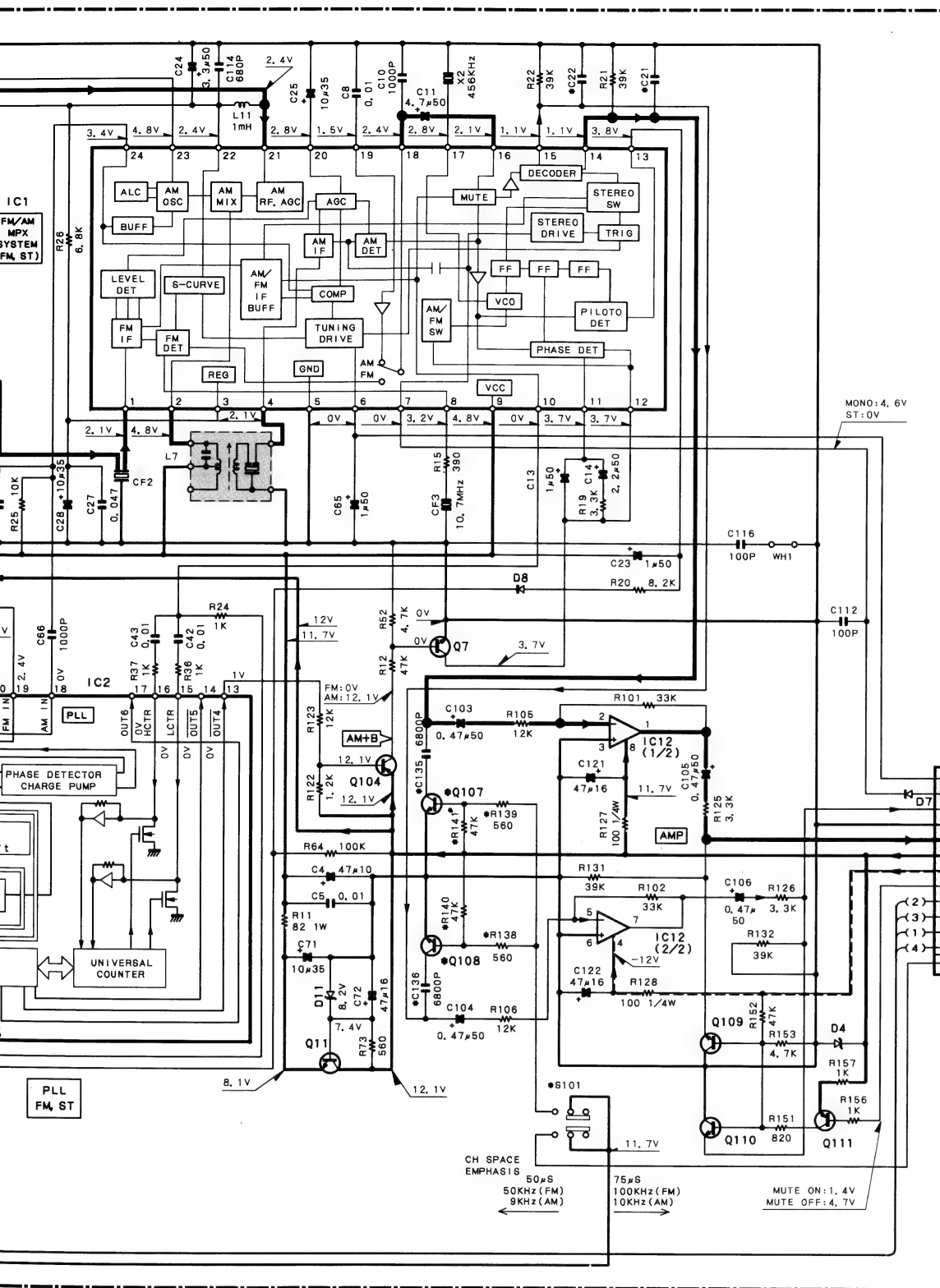
X05-4442-70

- IC1
 IC2
 IC3
- Q1
 Q2
 Q3, 4, 7, 109
 110, 113, 114,
 Q5, 102, 103, 1
 Q11
- D3
 D4
- D5, 111, 112
 D11

DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a signal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between individual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels. Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM (avec une force de signal de 60 dB à la borne ANT).

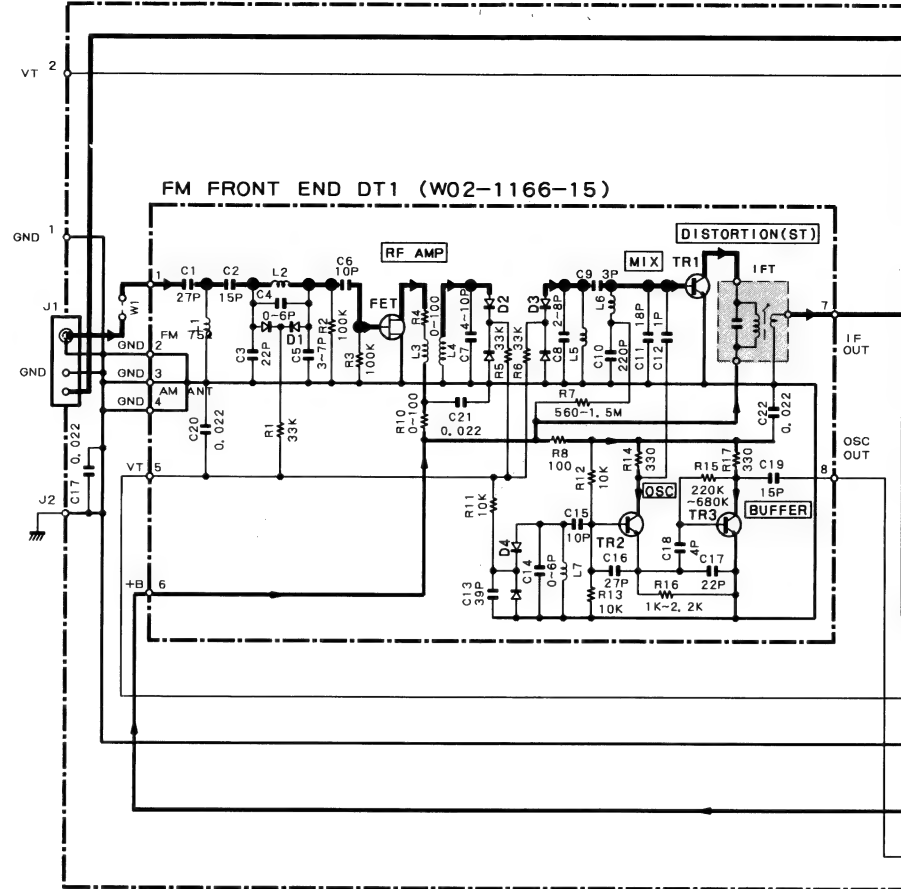
Die angegebenen C
 chohmigen Spannu
 (mit einer Feldstärke
 Dabei schwanken di
 chen einzelnen Inst
 eingeklammerten C
 eines MW-Signals (f
 schluß) gemessen.



DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a signal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between individual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

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X05-4442-70 (T, E TYPE) TUNER UNIT

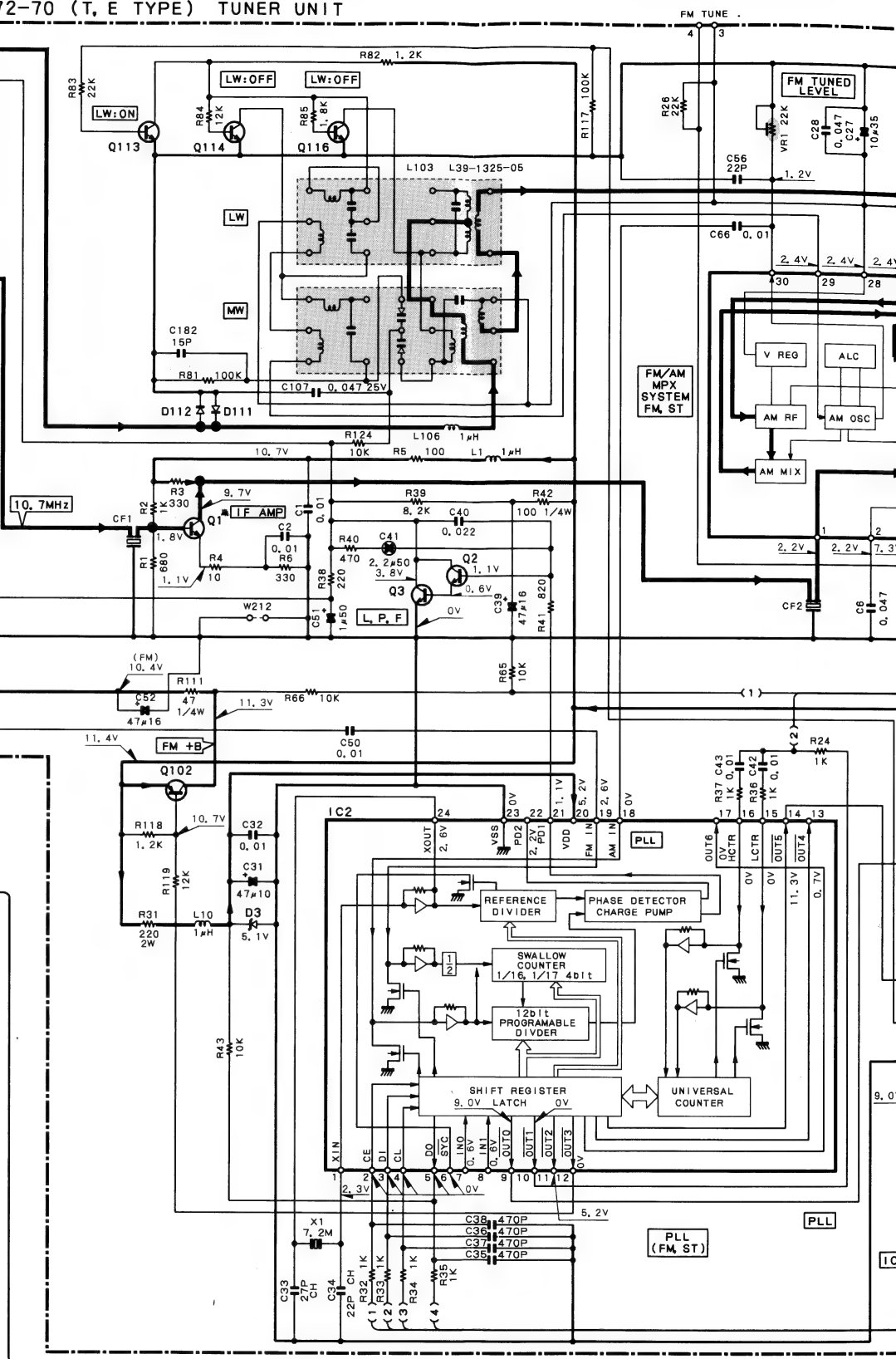


X05-4442-70

IC1 : LA1851N
IC2 : LC7218
IC3 : NJM4565D

Q1 : 2SC2714 (R, O)
Q2 : 2SC1845 (F, E)
Q3, 4, 7, 109 : 2SC2412K
110, 113, 114, 116 : 2SA1037K
Q5, 102, 103, 111 : 2SD863 (E, F)
Q11 : 2SD863 (E, F)
D3 : HZS5, 1N(B2) or RD5, 1ES(B2)
D4 : HZS3, 3N(B2) or RD3, 3ES(B2)
D5, 111, 112 : HSS104 or 1SS133
D11 : HZS10N(B) or RD10ES(B)

X05-4472-70 (T, E TYPE) TUNER UNIT



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). Δ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

T END DT1 (WQ2-1166-15)

42-70

:LA1851N
:LC7218
:NJM4565D

109
3, 114, 116
103, 111

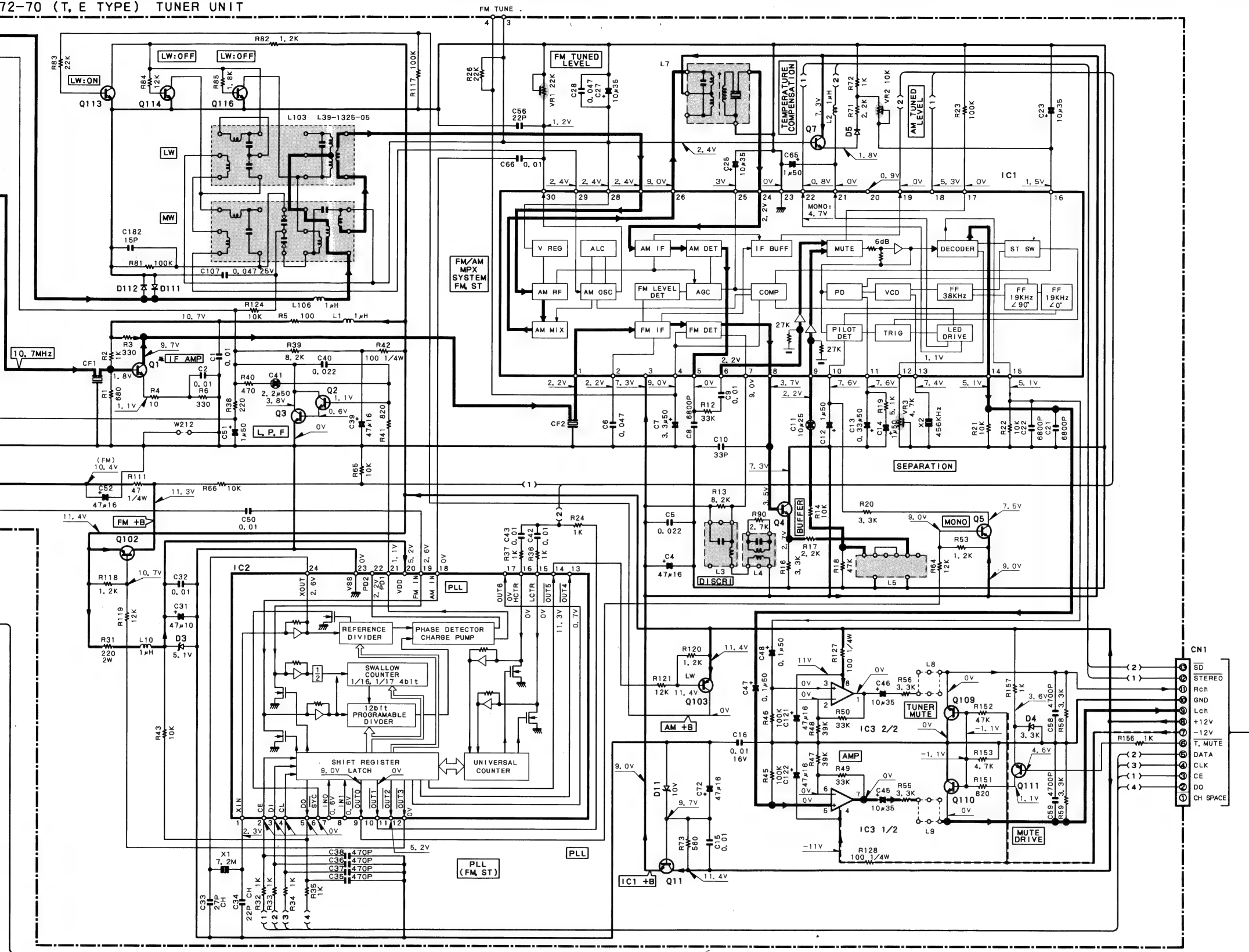
:2SC2714(R, O)
:2SC1845(F, E)
:2SC2412K
:2SA1037K
:2SD863(E, F)

:HZS5, 1N(B2) or RD5, 1ES(B2)

:HZS3, 3N(B2) or RD3, 3ES(B2)

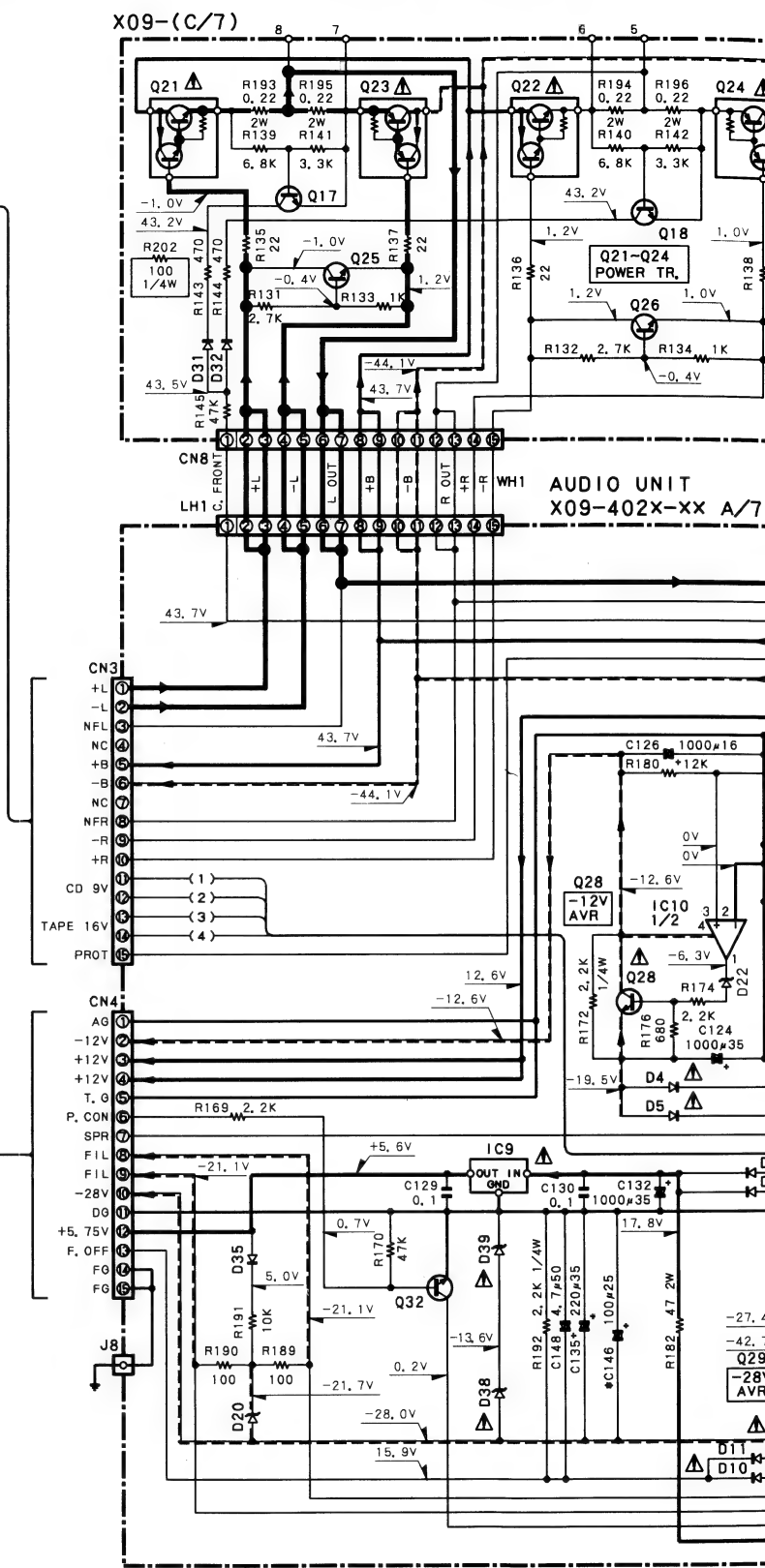
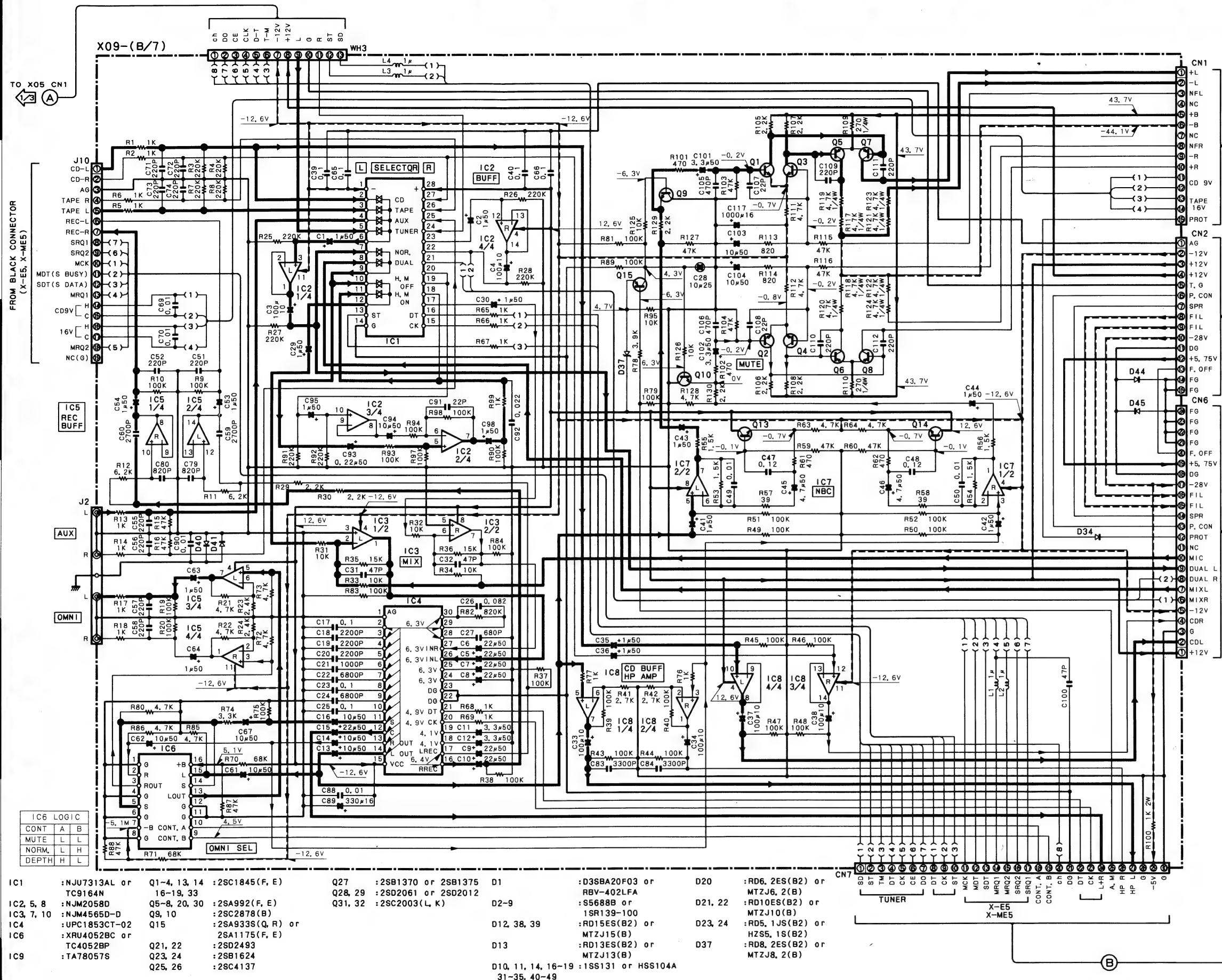
112

:HSS104 or 1SS133
:HZS10N(B) or RD10ES(B)

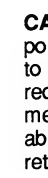


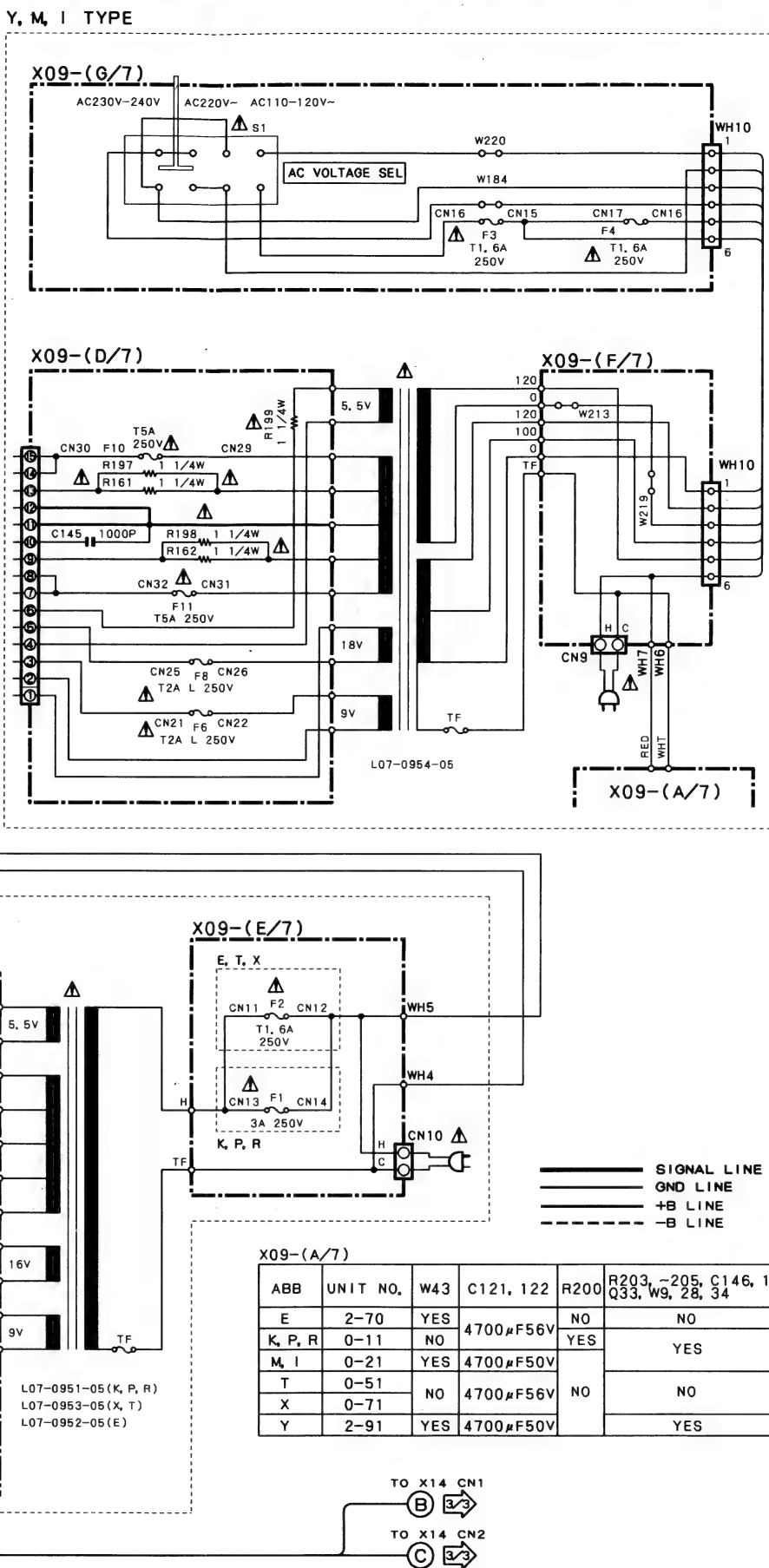
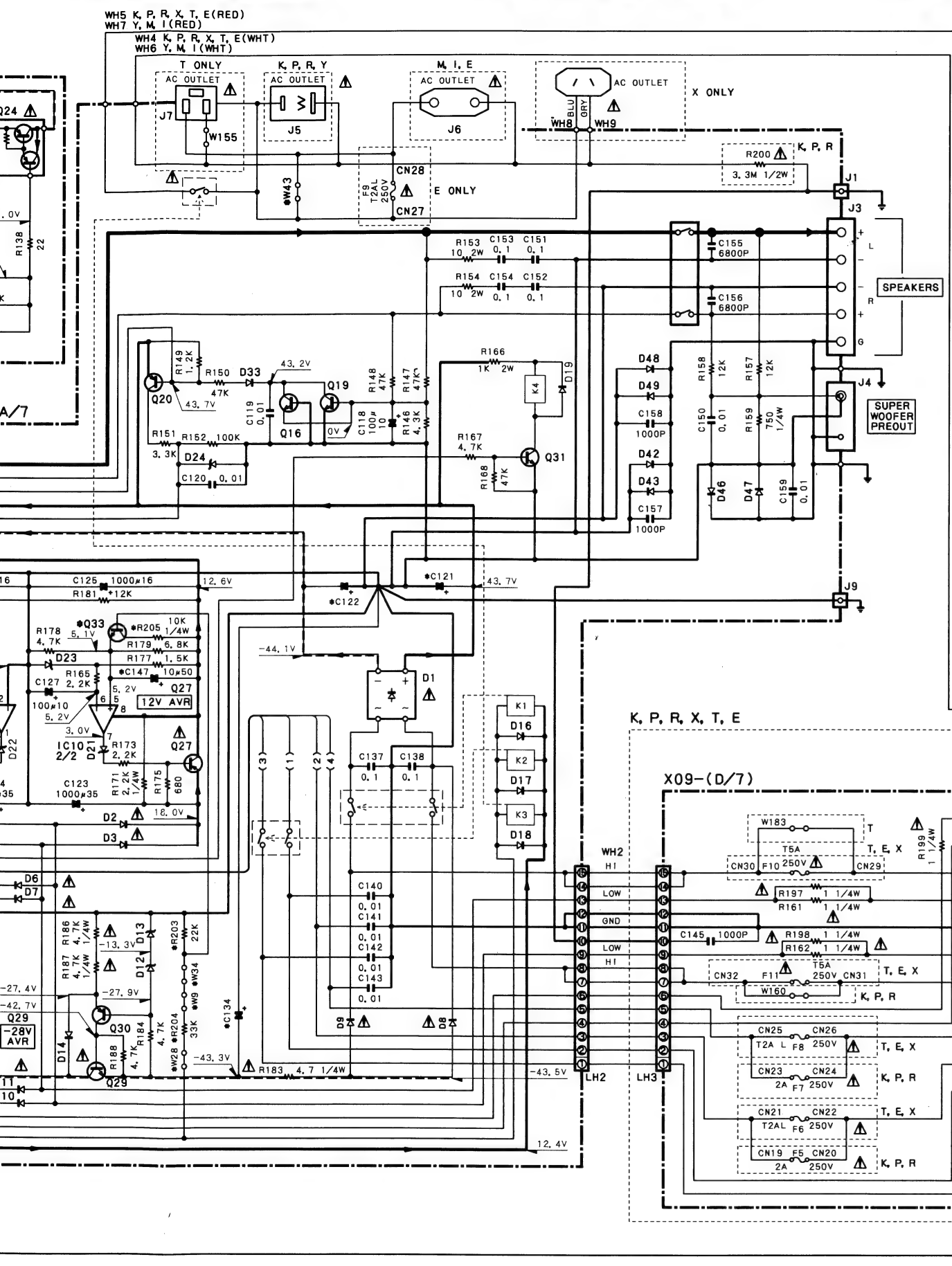
benen Gleichspannungswerte wurden mit einem ho-
Spannungsmesser bei Empfang eines UKW-Signals
eldstärke von 60 dB am Antennenanschluß) gemessen.
anken die Meßwerte aufgrund von Unterschieden zwis-
hen Instrumenten oder Geräten u. U. geringfügig. Die
herten Gleichspannungswerte wurden bei Empfang
signals (mit einer Feldstärke von 60 dB am Antennenan-
nessen.

CAUTION: For continued safety, replace safety critical com-
ponents only with manufacturer's recommended parts (refer to
parts list). **⚠** indicates safety critical components. To
reduce the risk of electric shock, leakage-current or resistance
measurements shall be carried out (exposed parts are accept-
ably insulated from the supply circuit) before the appliance is
returned to the customer.



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- 2SA992
2SC1845
2SC2003
2SC2878
2SD863
- 2SB1624
2SD2493
- 2SA1175
2SC2785
- 2SA933S
2SC1740S
- 2SA1037K
2SC2412K
2SC2714
- 2SC4137
- 2SB1370
2SD2061
- 2SB1375
2SD2012
- NJM4565D
NJM4565D-D
- NJM2058D
- XR-1091ECP
XRU4052BC
- TC4052BP
- XRA15218-DX
- M66310FP
- LA1851N
- TC9164N
- LC7218
- 2SC4038
- NJU7313AL

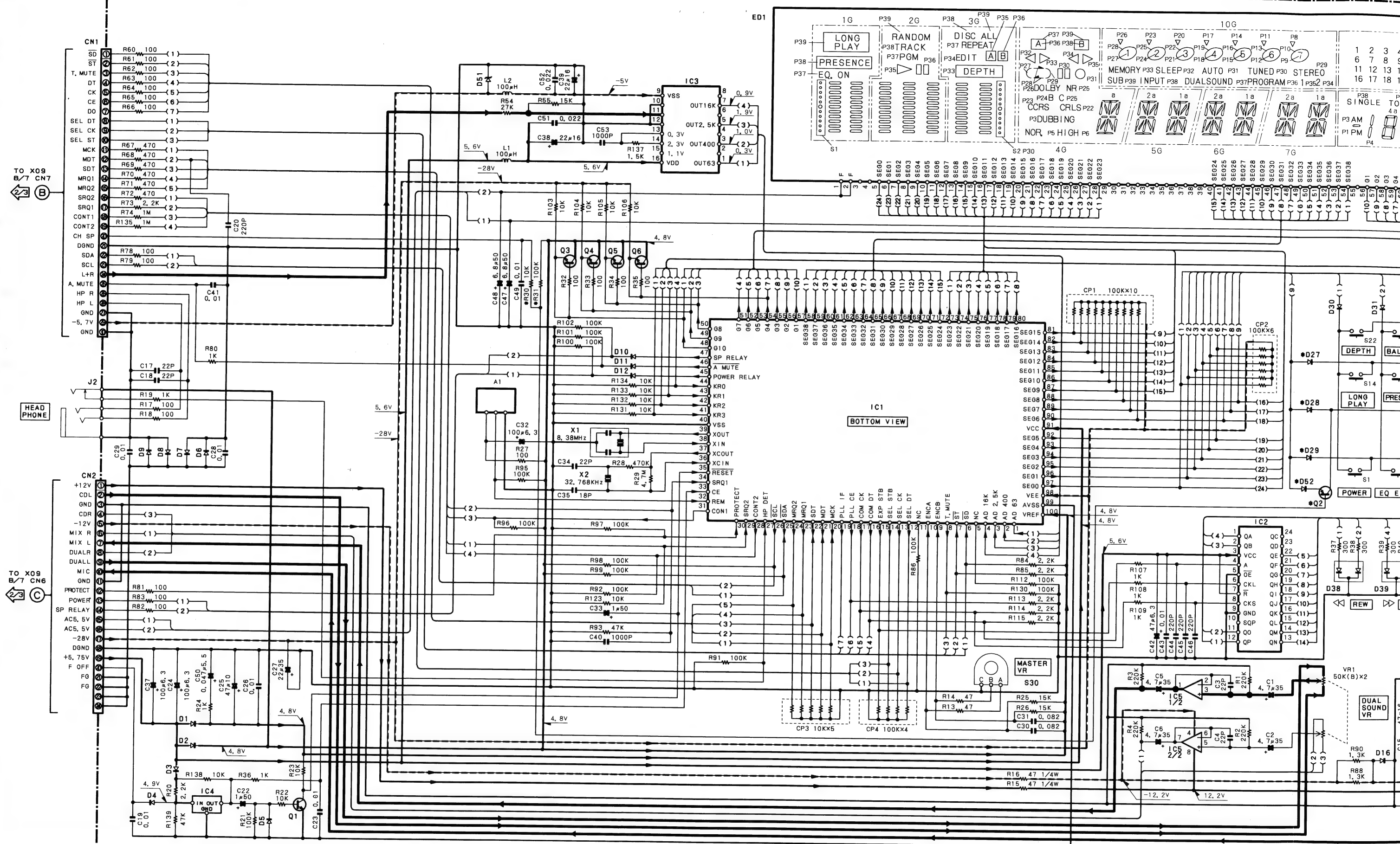
oltmeter strength y due to alues in oadcast).

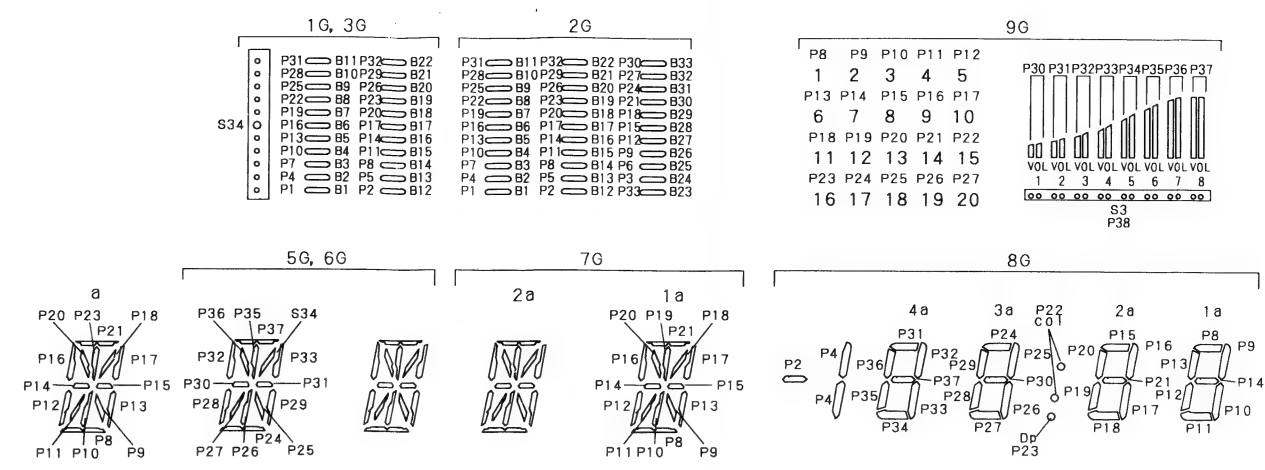
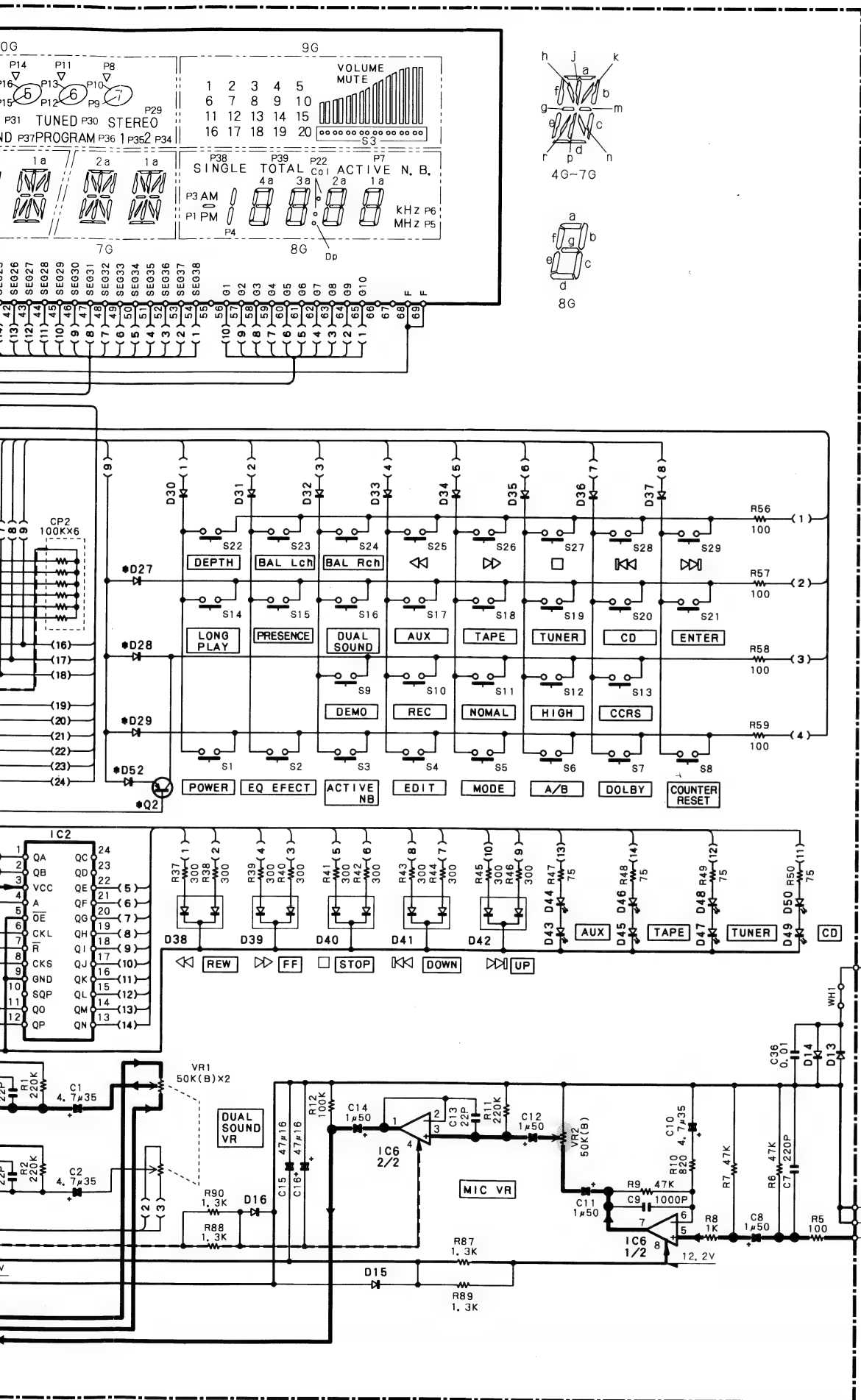
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Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals (mit einer Feldstärke von 60 dB am Antennenanschluß) gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig. Die eingeklammerten Gleichspannungswerte wurden bei Empfang eines MW-Signals (mit einer Feldstärke von 60 dB am Antennenanschluß) gemessen.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

X14-391X-XX DISPLAY UNIT





- IC1 :M38197MA-074FP
 IC2 :M66310FP
 IC3 :XR-1091ECP
 IC4 :S-806E-Z
 IC5, 6 :NJM4565D-D or XRA15218-DX
 ED1 :10-BT-144GK
 Q1, 3-6 :2SC4038(Q, R)
 Q2 :2SA933S(Q, R) or 2SA1175(F, E)
 D1-14 :HSS104A or 1SS131
 27-37, 52 :MTZJ3, 9(B) or RD3, 9ES(B2)
 D15, 16 :B30-2463-05
 D38-42 :B30-2463-05
 D43-50 :B30-2462-05
 D51 :MTZJ5, 1(B) or RD5, 1ES(B2)

ABB.	Ref. NO	D27	D28	D29	D52	Q2
K, P, R	UNIT					
Y, M, I	0-11	NO	NO	NO	NO	NO
X	0-71	YES	YES	YES	YES	YES
T, E	2-70	YES	NO	NO	NO	NO

DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a signal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between individual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

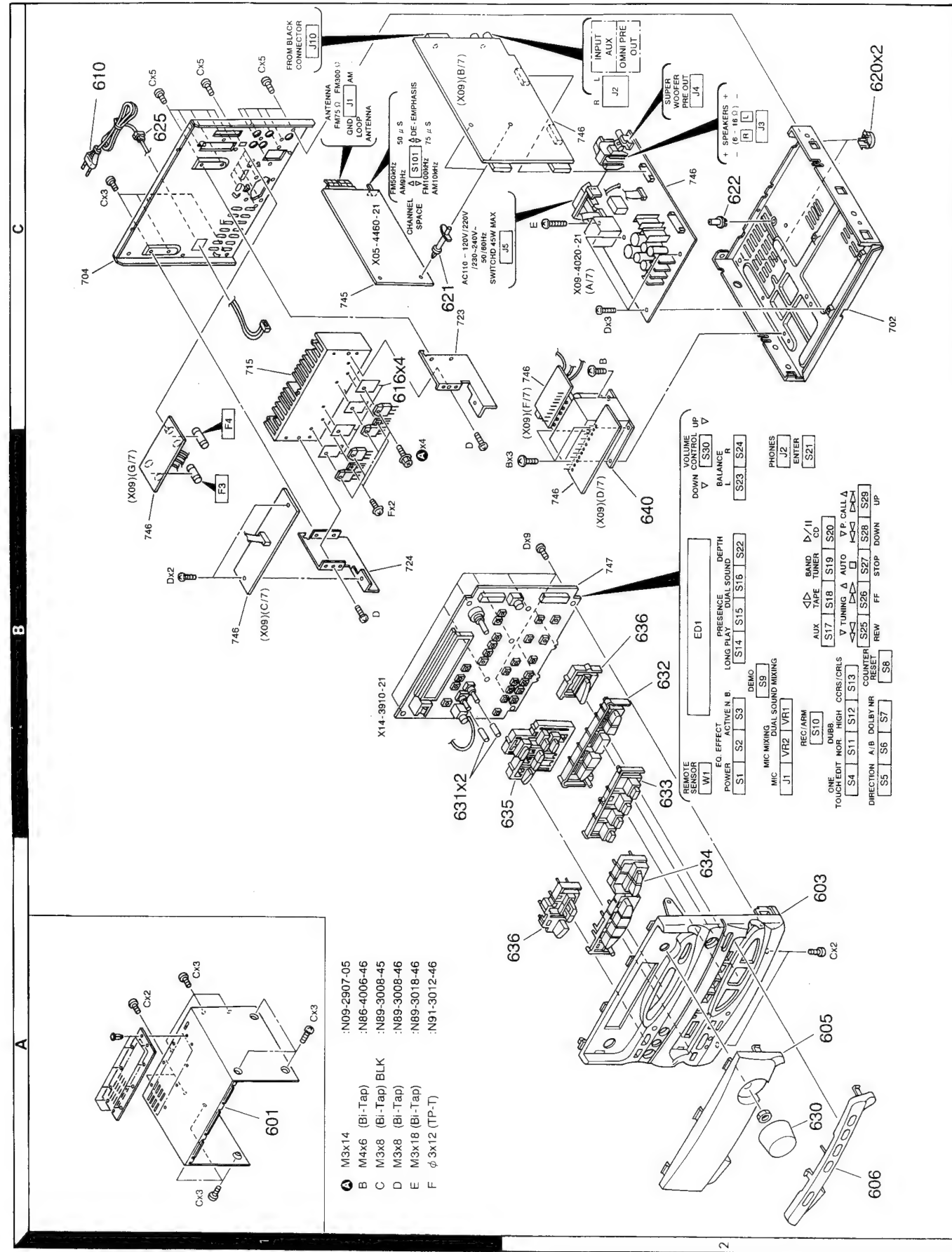
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CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

— SIGNAL LINE
 — GND LINE
 — +B LINE
 - - - -B LINE

EXPLODED VIEW



A-E5/L

A-E5/L

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No. 1

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向備考
A-E5/L (SINGAPORE MADE)				
601	1A	A01-3140-11	METALLIC CABINET	KRPYX
601	1A	A01-3140-11	METALLIC CABINET	TE
601	1A	A01-3204-11	METALLIC CABINET	M
603	2A	A60-0589-11	PANEL	KRPYX
605	2A	B10-2030-02	FRONT GLASS	TE
605	2A	B10-2030-02	FRONT GLASS	TE
605	2A	B10-2031-03	FRONT GLASS	TE
606	2A	B10-2031-03	FRONT GLASS	TE
-	-	B46-0310-03	WARRANTY CARD	Y
-	-	B58-0968-04	CAUTION CARD	ME
610	1C	E30-2592-15	AC POWER CORD	Y
610	1C	E30-2605-05	AC POWER CORD	KRP
610	1C	E30-2650-05	AC POWER CORD	X
610	1C	E30-2717-05	AC POWER CORD	T
610	1C	E30-2721-05	AC POWER CORD	X
J5	2C	E03-0141-05	AC OUTLET	X
616	1B	F20-1297-05	INSULATING BOARD	KRPYX
-	-	H50-1096-04	ITEM CARTON CASE	TE
-	-	H50-1097-04	ITEM CARTON CASE	TE
-	-	H50-1115-04	ITEM CARTON CASE	TE
-	-	H50-1279-04	ITEM CARTON CASE	KRPYX
-	-	H10-5782-02	POLYSTYRENE FOAMED FIXTURE (L)	KRPYX
-	-	H10-5783-02	POLYSTYRENE FOAMED FIXTURE (R)	E
-	-	H10-5783-02	POLYSTYRENE FOAMED FIXTURE (L)	E
-	-	H10-5783-02	POLYSTYRENE FOAMED FIXTURE (R)	E
-	-	H10-5805-02	POLYSTYRENE FOAMED FIXTURE (L)	T
-	-	H10-5805-02	POLYSTYRENE FOAMED FIXTURE (R)	T
-	-	H13-0176-14	CARTON BOARD	X
-	-	H25-0672-04	PROTECTION BAG	
620	2C	J02-0370-05	FOOT	
621	1C	J19-3328-15	UNIT HOLDER	
622	2C	J19-3657-14	UNIT HOLDER	
625	1C	J42-0083-05	POWER CORD BUSHING	
-	-	J61-0307-05	WIRE BAND	
630	2A	K29-4215-04	KNOB (VOLUME CONTROL)	
631	1B	K29-5810-04	KNOB (MIC/DUAL SOUND)	
632	2B	K29-5935-02	KNOB (TUNING/AUTO/P.CALL)	
633	2B	K29-5936-03	KNOB (AUX/TAPE/TUNER/CD)	
634	2A	K29-5937-12	KNOB (PRESENCE/BALANCE)	
635	2B	K29-5938-02	KNOB (DUBB/CCRS/DOLBY)	
636	2A, 2B	K29-5939-12	KNOB (POWER/EG/ENTER)	
640	2B	L07-0951-05	POWER TRANSFORMER	KRP
640	2B	L07-0952-05	POWER TRANSFORMER	E
640	2B	L07-0953-05	POWER TRANSFORMER	XT
640	2B	L07-0954-05	POWER TRANSFORMER	YM
A	1B	N09-2907-05	SEMS (TAPTITE SCREW) (3X14)	
B	2B, 2C	N86-4006-46	BINDING HEAD TAPTITE SCREW	
C	1A, 1C	N89-3008-45	BINDING HEAD TAPTITE SCREW	
D	1B, 2B	N89-3008-46	BINDING HEAD TAPTITE SCREW	
E	2C	N89-3018-46	BINDING HEAD TAPTITE SCREW	
F	1B	N91-3012-46	TP HEAD TAPPING SCREW	

L: Scandinavia K: USA P: Canada R: Mexico
Y: PX (Far East, Hawaii) T: England E: Europe G: Germany
V: AAFES (Europe) X: Australia M: Other Areas

△ indicates safety critical components.

No. 2

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向備考
A-E5/L (MALAYSIA MADE)				
601	1A	A01-3140-11	METALLIC CABINET	KRPYX
601	1A	A01-3140-11	METALLIC CABINET	TE
601	1A	A01-3204-11	METALLIC CABINET	M
603	2A	A60-0589-11	PANEL	KRPYX
605	2A	B10-2030-02	FRONT GLASS	TE
605	2A	B10-2030-02	FRONT GLASS	TE
605	2A	B10-2037-02	FRONT GLASS	TE
605	2A	B10-2037-02	FRONT GLASS	TE
606	2A	B10-2031-03	FRONT GLASS	TE
-	-	B46-0310-03	WARRANTY CARD	Y
-	-	B58-0968-04	CAUTION CARD	ME
610	1C	E30-2592-15	AC POWER CORD	Y
610	1C	E30-2605-05	AC POWER CORD	KRP
610	1C	E30-2650-05	AC POWER CORD	X
610	1C	E30-2717-05	AC POWER CORD	T
610	1C	E30-2721-05	AC POWER CORD	X
J5	2C	E03-0141-05	AC OUTLET	X
616	1B	F20-1297-05	INSULATING BOARD	KRPYX
-	-	H50-1096-04	ITEM CARTON CASE	TE
-	-	H50-1097-04	ITEM CARTON CASE	TE
-	-	H50-1115-04	ITEM CARTON CASE	TE
-	-	H50-1279-04	ITEM CARTON CASE	KRPYX
-	-	H10-5782-02	POLYSTYRENE FOAMED FIXTURE (L)	KRPYX
-	-	H10-5783-02	POLYSTYRENE FOAMED FIXTURE (R)	E
-	-	H10-5783-02	POLYSTYRENE FOAMED FIXTURE (L)	E
-	-	H10-5783-02	POLYSTYRENE FOAMED FIXTURE (R)	E
-	-	H10-5805-02	POLYSTYRENE FOAMED FIXTURE (L)	T
-	-	H10-5805-02	POLYSTYRENE FOAMED FIXTURE (R)	T
-	-	H13-0176-14	CARTON BOARD	X
-	-	H25-0672-04	PROTECTION BAG	
620	2C	J02-0370-05	FOOT	
621	1C	J19-3328-15	UNIT HOLDER	
622	2C	J19-3657-14	UNIT HOLDER	
625	1C	J42-0083-05	POWER CORD BUSHING	
-	-	J61-0307-05	WIRE BAND	
630	2A	K29-4215-04	KNOB (VOLUME CONTROL)	
631	1B	K29-5810-04	KNOB (MIC/DUAL SOUND)	
632	2B	K29-5935-02	KNOB (TUNING/AUTO/P.CALL)	
633	2B	K29-5936-03	KNOB (AUX/TAPE/TUNER/CD)	
634	2A	K29-5937-12	KNOB (PRESENCE/BALANCE)	
635	2B	K29-5938-02	KNOB (DUBB/CCRS/DOLBY)	
636	2A, 2B	K29-5939-12	KNOB (POWER/EG/ENTER)	
640	2B	L07-0951-05	POWER TRANSFORMER	KRP
640	2B	L07-0952-05	POWER TRANSFORMER	E
640	2B	L07-0953-05	POWER TRANSFORMER	XT
640	2B	L07-0954-05	POWER TRANSFORMER	YM
A	1B	N09-2907-05	SEMS (TAPTITE SCREW) (3X14)	
B	2B, 2C	N86-4006-46	BINDING HEAD TAPTITE SCREW	
C	1A, 1C	N89-3008-45	BINDING HEAD TAPTITE SCREW	
D	1B, 2B	N89-3008-46	BINDING HEAD TAPTITE SCREW	
E	2C	N89-3018-46	BINDING HEAD TAPTITE SCREW	
F	1B	N91-3012-46	TP HEAD TAPPING SCREW	

L: Scandinavia K: USA P: Canada R: Mexico
Y: PX (Far East, Hawaii) T: England E: Europe G: Germany
V: AAFES (Europe) X: Australia M: Other Areas

△ indicates safety critical components.

x New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No. 3

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
E F	2C 1B	N89-3018-46 N91-3012-46	BINDING HEAD TAPITE SCREW TP HEAD TAPPING SCREW		
TUNER UNIT (X05-4460-XX)					
C1 C2 C3 C4 C5 C6 C7 C8 C9 C10 C11 C12 C13 C14 C15 C16 C17 C18 C19 C20 C21 C22 C23 C24 C25 C26 C27 C28 C29 C30 C31 C32 C33 C34 C35 C36 C37 C38 C39 C40 C41 C42 C43 C44 C45 C46 C47 C48 C49 C50 C51 C52 C53 C54 C55 C56 C57 C58 C59 C60 C61 C62 C63 C64 C65 C66 C67 C68 C69 C70 C71 C72 C73 C74 C75 C76 C77 C78 C79 C80 C81 C82 C83 C84 C85 C86 C87 C88 C89 C90 C91 C92 C93 C94 C95 C96 C97 C98 C99 C100 C101 C102 C103 C104 C105 C106 C107 C108 C109 C110 C111 C112 C113 C114 C115 C116 C117 C118 C119 C120 C121 C122 C123 C124 C125 C126 C127 C128 C129 C130 C131 C132 C133 C134 C135 C136 C137 C138 C139 C140 C141 C142 C143 C144 C145 C146 C147 C148 C149 C150 C151 C152 C153 C154 C155 C156 C157 C158 C159 C160 C161 C162 C163 C164 C165 C166 C167 C168 C169 C170 C171 C172 C173 C174 C175 C176 C177 C178 C179 C180 C181 C182 C183 C184 C185 C186 C187 C188 C189 C190 C191 C192 C193 C194 C195 C196 C197 C198 C199 C200 C201 C202 C203 C204 C205 C206 C207 C208 C209 C210 C211 C212 C213 C214 C215 C216 C217 C218 C219 C220 C221 C222 C223 C224 C225 C226 C227 C228 C229 C230 C231 C232 C233 C234 C235 C236 C237 C238 C239 C240 C241 C242 C243 C244 C245 C246 C247 C248 C249 C250 C251 C252 C253 C254 C255 C256 C257 C258 C259 C260 C261 C262 C263 C264 C265 C266 C267 C268 C269 C270 C271 C272 C273 C274 C275 C276 C277 C278 C279 C280 C281 C282 C283 C284 C285 C286 C287 C288 C289 C290 C291 C292 C293 C294 C295 C296 C297 C298 C299 C300 C301 C302 C303 C304 C305 C306 C307 C308 C309 C310 C311 C312 C313 C314 C315 C316 C317 C318 C319 C320 C321 C322 C323 C324 C325 C326 C327 C328 C329 C330 C331 C332 C333 C334 C335 C336 C337 C338 C339 C340 C341 C342 C343 C344 C345 C346 C347 C348 C349 C350 C351 C352 C353 C354 C355 C356 C357 C358 C359 C360 C361 C362 C363 C364 C365 C366 C367 C368 C369 C370 C371 C372 C373 C374 C375 C376 C377 C378 C379 C380 C381 C382 C383 C384 C385 C386 C387 C388 C389 C390 C391 C392 C393 C394 C395 C396 C397 C398 C399 C400 C401 C402 C403 C404 C405 C406 C407 C408 C409 C410 C411 C412 C413 C414 C415 C416 C417 C418 C419 C420 C421 C422 C423 C424 C425 C426 C427 C428 C429 C430 C431 C432 C433 C434 C435 C436 C437 C438 C439 C440 C441 C442 C443 C444 C445 C446 C447 C448 C449 C450 C451 C452 C453 C454 C455 C456 C457 C458 C459 C460 C461 C462 C463 C464 C465 C466 C467 C468 C469 C470 C471 C472 C473 C474 C475 C476 C477 C478 C479 C480 C481 C482 C483 C484 C485 C486 C487 C488 C489 C490 C491 C492 C493 C494 C495 C496 C497 C498 C499 C500 C501 C502 C503 C504 C505 C506 C507 C508 C509 C510 C511 C512 C513 C514 C515 C516 C517 C518 C519 C520 C521 C522 C523 C524 C525 C526 C527 C528 C529 C530 C531 C532 C533 C534 C535 C536 C537 C538 C539 C540 C541 C542 C543 C544 C545 C546 C547 C548 C549 C550 C551 C552 C553 C554 C555 C556 C557 C558 C559 C560 C561 C562 C563 C564 C565 C566 C567 C568 C569 C570 C571 C572 C573 C574 C575 C576 C577 C578 C579 C580 C581 C582 C583 C584 C585 C586 C587 C588 C589 C590 C591 C592 C593 C594 C595 C596 C597 C598 C599 C600 C601 C602 C603 C604 C605 C606 C607 C608 C609 C610 C611 C612 C613 C614 C615 C616 C617 C618 C619 C620 C621 C622 C623 C624 C625 C626 C627 C628 C629 C630 C631 C632 C633 C634 C635 C636 C637 C638 C639 C640 C641 C642 C643 C644 C645 C646 C647 C648 C649 C650 C651 C652 C653 C654 C655 C656 C657 C658 C659 C660 C661 C662 C663 C664 C665 C666 C667 C668 C669 C670 C671 C672 C673 C674 C675 C676 C677 C678 C679 C680 C681 C682 C683 C684 C685 C686 C687 C688 C689 C690 C691 C692 C693 C694 C695 C696 C697 C698 C699 C700 C701 C702 C703 C704 C705 C706 C707 C708 C709 C710 C711 C712 C713 C714 C715 C716 C717 C718 C719 C720 C721 C722 C723 C724 C725 C726 C727 C728 C729 C730 C731 C732 C733 C734 C735 C736 C737 C738 C739 C740 C741 C742 C743 C744 C745 C746 C747 C748 C749 C750 C751 C752 C753 C754 C755 C756 C757 C758 C759 C760 C761 C762 C763 C764 C765 C766 C767 C768 C769 C770 C771 C772 C773 C774 C775 C776 C777 C778 C779 C780 C781 C782 C783 C784 C785 C786 C787 C788 C789 C790 C791 C792 C793 C794 C795 C796 C797 C798 C799 C800 C801 C802 C803 C804 C805 C806 C807 C808 C809 C810 C811 C812 C813 C814 C815 C816 C817 C818 C819 C820 C821 C822 C823 C824 C825 C826 C827 C828 C829 C830 C831 C832 C833 C834 C835 C836 C837 C838 C839 C840 C841 C842 C843 C844 C845 C846 C847 C848 C849 C850 C851 C852 C853 C854 C855 C856 C857 C858 C859 C860 C861 C862 C863 C864 C865 C866 C867 C868 C869 C870 C871 C872 C873 C874 C875 C876 C877 C878 C879 C880 C881 C882 C883 C884 C885 C886 C887 C888 C889 C890 C891 C892 C893 C894 C895 C896 C897 C898 C899 C900 C901 C902 C903 C904 C905 C906 C907 C908 C909 C910 C911 C912 C913 C914 C915 C916 C917 C918 C919 C920 C921 C922 C923 C924 C925 C926 C927 C928 C929 C930 C931 C932 C933 C934 C935 C936 C937 C938 C939 C940 C941 C942 C943 C944 C945 C946 C947 C948 C949 C950 C951 C952 C953 C954 C955 C956 C957 C958 C959 C960 C961 C962 C963 C964 C965 C966 C967 C968 C969 C970 C971 C972 C973 C974 C975 C976 C977 C978 C979 C980 C981 C982 C983 C984 C985 C986 C987 C988 C989 C990 C991 C992 C993 C994 C995 C996 C997 C998 C999 C1000 C1001 C1002 C1003 C1004 C1005 C1006 C1007 C1008 C1009 C1010 C1011 C1012 C1013 C1014 C1015 C1016 C1017 C1018 C1019 C1020 C1021 C1022 C1023 C1024 C1025 C1026 C1027 C1028 C1029 C1030 C1031 C1032 C1033 C1034 C1035 C1036 C1037 C1038 C1039 C1040 C1041 C1042 C1043 C1044 C1045 C1046 C1047 C1048 C1049 C1050 C1051 C1052 C1053 C1054 C1055 C1056 C1057 C1058 C1059 C1060 C1061 C1062 C1063 C1064 C1065 C1066 C1067 C1068 C1069 C1070 C1071 C1072 C1073 C1074 C1075 C1076 C1077 C1078 C1079 C1080 C1081 C1082 C1083 C1084 C1085 C1086 C1087 C1088 C1089 C1090 C1091 C1092 C1093 C1094 C1095 C1096 C1097 C1098 C1099 C1100 C1101 C1102 C1103 C1104 C1105 C1106 C1107 C1108 C1109 C1110 C1111 C1112 C1113 C1114 C1115 C1116 C1117 C1118 C1119 C1120 C1121 C1122 C1123 C1124 C1125 C1126 C1127 C1128 C1129 C1130 C1131 C1132 C1133 C1134 C1135 C1136 C1137 C1138 C1139 C1140 C1141 C1142 C1143 C1144 C1145 C1146 C1147 C1148 C1149 C1150 C1151 C1152 C1153 C1154 C1155 C1156 C1157 C1158 C1159 C1160 C1161 C1162 C1163 C1164 C1165 C1166 C1167 C1168 C1169 C1170 C1171 C1172 C1173 C1174 C1175 C1176 C1177 C1178 C1179 C1180 C1181 C1182 C1183 C1184 C1185 C1186 C1187 C1188 C1189 C1190 C1191 C1192 C1193 C1194 C1195 C1196 C1197 C1198 C1199 C1200 C1201 C1202 C1203 C1204 C1205 C1206 C1207 C1208 C1209 C1210 C1211 C1212 C1213 C1214 C1215 C1216 C1217 C1218 C1219 C1220 C1221 C1222 C1223 C1224 C1225 C1226 C1227 C1228 C1229 C1230 C1231 C1232 C1233 C1234 C1235 C1236 C1237 C1238 C1239 C1240 C1241 C1242 C1243 C1244 C1245 C1246 C1247 C1248 C1249 C1250 C1251 C1252 C1253 C1254 C1255 C1256 C1257 C1258 C1259 C1260 C1261 C1262 C1263 C1264 C1265 C1266 C1267 C1268 C1269 C1270 C1271 C1272 C1273 C1274 C1275 C1276 C1277 C1278 C1279 C1280 C1281 C1282 C1283 C1284 C1285 C1286 C1287 C1288 C1289 C1290 C1291 C1292 C1293 C1294 C1295 C1296 C1297 C1298 C1299 C1300 C1301 C1302 C1303 C1304 C1305 C1306 C1307 C1308 C1309 C1310 C1311 C1312 C1313 C1314 C1315 C1316 C1317 C1318 C1319 C1320 C1321 C1322 C1323 C1324 C1325 C1326 C1327 C1328 C1329 C1330 C1331 C1332 C1333 C1334 C1335 C1336 C1337 C1338 C1339 C1340 C1341 C1342 C1343 C1344 C1345 C1346 C1347 C1348 C1349 C1350 C1351 C1352 C1353 C1354 C1355 C1356 C1357 C1358 C1359 C1360 C1361 C1362 C1363 C1364 C1365 C1366 C1367 C1368 C1369 C1370 C1371 C1372 C1373 C1374 C1375 C1376 C1377 C1378 C1379 C1380 C1381 C1382 C1383 C1384 C1385 C1386 C1387 C1388 C1389 C1390 C1391 C1392 C1393 C1394 C1395 C1396 C1397 C1398 C1399 C1400 C1401 C1402 C1403 C1404 C1405 C1406 C1407 C1408 C1409 C1410 C1411 C1412 C1413 C1414 C1415 C1416 C1417 C1418 C1419 C1420 C1421 C1422 C1423 C1424 C1425 C1426 C1427 C1428 C1429 C1430 C1431 C1432 C1433 C1434 C1435 C1436 C1437 C1438 C1439 C1440 C1441 C1442 C1443 C1444 C1445 C1446 C1447 C1448 C1449 C1450 C1451 C1452 C1453 C1454 C1455 C1456 C1457 C1458 C1459 C1460 C1461 C1462 C1463 C1464 C1465 C1466 C1467 C1468 C1469 C1470 C1471 C1472 C1473 C1474 C1475 C1476 C1477 C1478 C1479 C1480 C1481 C1482 C1483 C1484 C1485 C1486 C1487 C1488 C1489 C1490 C1491 C1492 C1493 C1494 C1495 C1496 C1497 C1498 C1499 C1500 C1501 C1502 C1503 C1504 C1505 C1506 C1507 C1508 C1509 C1510 C1511 C1512 C1513 C1514 C1515 C1516 C1517 C1518 C1519 C1520 C1521 C1522 C1523 C1524 C1525 C1526 C1527 C1528 C1529 C1530 C1531 C1532 C1533 C1534 C1535 C1536 C1537 C1538 C1539 C1540 C1541 C1542 C1543 C1544 C1545 C1546 C1547 C1548 C1549 C1550 C1551 C1552 C1553 C1554 C1555 C1556 C1557 C1558 C1559 C1560 C1561 C1562 C1563 C1564 C1565 C1566 C1567 C1568 C1569 C1570 C1571 C1572 C1573 C1574 C1575 C1576 C1577 C1578 C1579 C1580 C1581 C1582 C1583 C1584 C1585 C1586 C1587 C1588 C1589 C1590 C1591 C1592 C1593 C1594 C1595 C1596 C1597 C1598 C1599 C1600 C1601 C1602 C1603 C1604 C1605 C1606 C1607 C1608 C1609 C1610 C1611 C1612 C1613 C1614 C1615 C1616 C1617 C1618 C1619 C1620 C1621 C1622 C1623 C1624 C1625 C1626 C1627 C1628 C1629 C1630 C1631 C1632 C1633 C1634 C1635 C1636 C1637 C1638 C1639 C1640 C1641 C1642 C1643 C1644 C1645 C1646 C1647 C1648 C1649 C1650 C1651 C1652 C1653 C1654 C1655 C1656 C1657 C1658 C1659 C1660 C1661 C1662 C1663 C1664 C1665 C1666 C1667 C1668 C1669 C1670 C1671 C1672 C1673 C1674 C1675 C1676 C1677 C1678 C1679 C1680 C1681 C1682 C1683 C1684 C1685 C1686 C1687 C1688 C1689 C1690 C1691 C1692 C1693 C1694 C1695 C1696 C1697 C1698 C1699 C1700 C1701 C1702 C1703 C1704 C1705 C1706 C1707 C1708 C1709 C1710 C1711 C1712 C1713 C1714 C1715 C1716 C1717 C1718 C1719 C1720 C1721 C1722 C1723 C1724 C1725 C1726 C1727 C1728 C1729 C1730 C1731 C1732 C1733 C1734 C1735 C1736 C1737 C1738 C1739 C1740 C1741 C1742 C1743 C1744 C1745 C1746 C1747 C1748 C1749 C1750 C1751 C1752 C1753 C1754 C1755 C1756 C1757 C1758 C1759 C1760 C1761 C1762 C1763 C1764 C1765 C1766 C1767 C1768 C1769 C1770 C1771 C1772 C1773 C1774 C1775 C1776 C1777 C1778 C1779 C1780 C1781 C1782 C1783 C1784 C1785 C1786 C1787 C1788 C1789 C1790 C1791 C1792 C1793 C1794 C1795 C1796 C1797 C1798 C1799 C1800 C1801 C1802 C1803 C1804 C1805 C1806 C1807 C1808 C1809 C1810 C1811 C1812 C1813 C1814 C1815 C1816 C1817 C1818 C1819 C1820 C1821 C1822 C1823 C1824 C1825 C1826 C1827 C1828 C1829 C1830 C1831 C1832 C1833 C1834 C1835 C1836 C1837 C1838 C1839 C1840 C1841 C1842 C1843 C1844 C1845 C1846 C1847 C1848 C1849 C1850 C1851 C1852 C1853 C1854 C1855 C1856 C1857 C1858 C1859 C1860 C1861 C1862 C1863 C1864 C1865 C1866 C1867 C1868 C186					

PARTS LIST

✕ New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No. 5

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
C28		CK73FB1E473K	CHIP C		
C31		CE04LW1A470M	ELECTRØ		
C32		CK73FB1H103K	CHIP C		
C33		CC73FCH1H270J	CHIP C		
C34		CC73FCH1H220J	CHIP C		
C35 - 38		CK73FB1H471K	CHIP C		
C39		CE04LW1C470M	ELECTRØ		
C40		C982FM1H293J	MYLAR		
C41		CE04LW1H2R2M	NP-ELEC		
C42 , 43		CK73FB1H103K	CHIP C		
C45 , 46		CE04LW1V100M	ELECTRØ		
C47 , 48		CE04LW1H0R1M	ELECTRØ		
C50		C91-0769-05	CERAMIC		
C51		CE04LW1H010M	ELECTRØ		
C52		CE04LW1C470M	ELECTRØ		
C56		CC73FCH1H220J	CHIP C		
C58 , 59		CK73FB1H472K	CHIP C		
C65		CE04LW1H010M	ELECTRØ		
C66		C91-0769-05	CERAMIC		
C72		CE04LW1C470M	ELECTRØ		
C107		CK73FB1E473K	CHIP C		
C121 , 122		CE04LW1C470M	ELECTRØ		
C182		CC73FSL1H150J	CHIP C		
J1		E20-0321-05	LOCK TERMINAL BOARD(3P)ANTENNA		
CF1 , 2		L72-0536-05	CERAMIC FILTER		
L1 , 2		L40-1091-17	SMALL FIXED INDUCTØR(1UH)		
L3		L30-0494-05	FM IFT		
L4		L30-0497-05	FM IFT		
L5		L79-0125-05	LC FILTER		
L7		L30-0467-05	AM IFT		
L8 , 9		L79-0790-05	LC FILTER		
L10		L40-1091-17	SMALL FIXED INDUCTØR(1UH)		
L103		L39-1325-05	COMBINATION COIL		
L106		L40-1091-17	SMALL FIXED INDUCTØR(1UH)		
X1		L77-1122-05	CRYSTAL RESONATØR(7.2MHz)		
X2		L78-0295-05	RESONATØR (456kHz)		
R31		RS14KB30221J	FL-PRØØF RS		
R42		R014NB2E101J	RD 100		
R111		R014NB2E470J	RD 47		
R127 , 128		R014NB2E101J	RD 100		
VR1		R12-3686-05	TRIMMING PØT.(22K)		
VR2		R12-3685-05	TRIMMING PØT.(10K)		
VR3		R12-1619-05	TRIMMING PØT.(4.7K)		
W101-103		R92-0670-05	CHIP R		
W200-207		R92-0679-05	CHIP R		
W211 , 212		R92-0679-05	CHIP R		
D3		H255-1N(82)	ZENER DIØDE		
D3		H255-1ES(82)	ZENER DIØDE		
D4		H253-3N(82)	ZENER DIØDE		
D4		H253-3ES(82)	ZENER DIØDE		
D5		HSS104	DIØDE		
D5		1S5133	DIØDE		
D11		H2510N(B)	ZENER DIØDE		

L: Scandinavia
Y: PX (Far East, Hawaii)
Y: AAFES (Europe)

K: USA
T: England
X: Australia

P: Canada
E: Europe
M: Other Areas

R: Mexico
G: Germany

△ indicates safety critical components.

✕ New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnés dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No. 6

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向	Re- marks 備考
D11		RD10ES(B)	ZENER DIØDE		
D111 , 112		HSS104	DIØDE		
D111 , 112		1S5133	DIØDE		
Ic1		LA1851N	IC(AM, FM TUNER)		
Ic2		LC7218	IC(PLL SYNTHESIZER)		
Ic3		NJMA565D	IC(OP AMP X2)		
Q1		2SC2714(R,Ø)	TRANSISTØR		
Q2		2SC1845(F,E)	TRANSISTØR		
Q3 , 4		2SC2412K	TRANSISTØR		
Q7		2SA1037K	TRANSISTØR		
Q11		2SC2412K	TRANSISTØR		
Q102 , 103		2S0863(E,F)	TRANSISTØR		
Q109 , 110		2SA1037K	TRANSISTØR		
Q111		2SC2412K	TRANSISTØR		
Q113 , 114		2SC2412K	TRANSISTØR		
Q116		2SC2412K	TRANSISTØR		
DT1		W02-1166-15	FM FRØNT-END ASSY		
AUDIO UNIT (X09-402X-XX)					
C1 , 2		CE04LW1H010M	ELECTRØ		
C3 , 4		CE04LW1A101M	ELECTRØ		
C5 - 10		CE04LW1H220M	ELECTRØ		
C11 , 12		CE04LW1H3R3M	ELECTRØ		
C13 , 14		CE04LW1H100M	ELECTRØ		
C15		CE04LW1H220M	ELECTRØ		
C16		CE04LW1H100M	ELECTRØ		
C17	*	CQ93FNG1H104J	MYLAR		
C18 - 20	*	CQ93FNG1H222J	MYLAR		
C21	*	CQ93FNG1H102J	MYLAR		
C22	*	CQ93FNG1H682J	MYLAR		
C23	*	CQ93FNG1H104J	MYLAR		
C24	*	CQ93FNG1H682J	MYLAR		
C25	*	CQ93FNG1H104J	MYLAR		
C26	*	CQ93FNG1H823J	MYLAR		
C27	*	CQ93FNG1H681J	MYLAR		
C28		NP-ELEC	NP-ELEC		
C29 , 30		CE04HW1E100M	ELECTRØ		
C31 , 32		CE04LW1H010M	ELECTRØ		
C33 , 34		CC45FCH1H470J	CERAMIC		
C35 , 36		CE04LW1A101M	ELECTRØ		
C37 , 38		CE04LW1H010M	ELECTRØ		
C39 , 40	*	CQ93FNG1H104J	MYLAR		
C41 - 44		CE04LW1H010M	ELECTRØ		
C45 , 46		CE04LW1H4R7M	ELECTRØ		
C47 , 48		CF92FV1H124J	MF		
C49 , 50		CK45FE1H103Z	CERAMIC		
C51 , 52		CK45FB1H221K	CERAMIC		
C53 , 54		CE04LW1H010M	ELECTRØ		
C55 - 58		CK45FB1H221K	CERAMIC		
C59 , 60		CQ93FNG1H272J	MYLAR		
C61 , 62		CE04LW1H100M	ELECTRØ		
C63 , 64		CE04LW1H010M	ELECTRØ		
C65 , 66	*	CQ93FNG1H104J	MYLAR		
C67		CE04LW1H100M	ELECTRØ		

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PARTS LIST

No. 8

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向備考
F5		F04-2025-05	FUSE (UL)	KRP
F6		F06-2021-05	FUSE (SEMK0)	YMI XTE
F7		F04-2025-05	FUSE (UL)	KRP
F8		F06-2021-05	FUSE (SEMK0)	YMI XTE
F9		F06-2021-05	FUSE (SEMK0)	E
F10, 11		F05-5025-05	FUSE (SEMK0)	YMI XTE
CN11, 12		J13-0075-05	FUSE CLIP	XTE
CN11, 14		J13-0075-05	FUSE CLIP	KRP
CN15, 16		J13-0075-05	FUSE CLIP	YMI
CN17, 20		J13-0075-05	FUSE CLIP	KRP
CN21, 22		J13-0075-05	FUSE CLIP	YMI XTE
CN23, 24		J13-0075-05	FUSE CLIP	KRP
CN25, 26		J13-0075-05	FUSE CLIP	YMI XTE
CN27, 28		J13-0075-05	FUSE CLIP	E
CN29-32		J13-0075-05	FUSE CLIP	YMI XTE
L1 -4		L40-1091-17	SMALL FIXED INDUCTOR(1UH)	
R100		RS14KB30102J	FL-PROOF RS 1.0K J 2W	
R135-138		RD14NB2E220J	RD 22 J 1/4W	
R153, 154		RS14KB30100J	FL-PROOF RS 10 J 2W	
R161, 162		RD14NB2E1R0J	RD 1.0 J 1/4W	
R166		RS14KB30102J	FL-PROOF RS 1.0K J 2W	
R171, 172		RD14NB2E222J	RD 2.2K J 1/4W	
R182		RS14KB30470J	FL-PROOF RS 47 J 2W	
R183		RD14NB2E4R7J	RD 4.7 J 1/4W	
R193-196		RS14KB30R22J	FL-PROOF RS 0.22 J 2W	
R197-199		RD14NB2E1R0J	RD 1.0 J 1/4W	
R200		R92-1769-05	CARBON 3.3M J 1/2W	KRP
K1, 2		S51-2094-05	MAGNETIC RELAY	
K3		S76-0002-05	MAGNETIC RELAY	
K4		S76-0005-05	MAGNETIC RELAY	
S1		S51-2322-05	SLIDE SWITCH AC VOLTAGE SEL	YMI
D1		D35BA20F03	D100E	
D1		RBV-402LFA	D100E	
D2 -9		S56888	D100E	
D2		ISR139-100	D100E	
D10, 11		HSS104A	D100E	
D10, 11		ISS131	D100E	
D12		MTZJ15(B)	ZENER D100E	
D12		R015ES(B2)	ZENER D100E	
D13		MTZJ13(B)	ZENER D100E	
D13		R013ES(B2)	ZENER D100E	
D14		HSS104A	D100E	
D14		ISS131	D100E	
D16 -19		HSS104A	D100E	
D16 -19		ISS131	D100E	
D20		MTZJ6.2(B)	ZENER D100E	
D20		R06.2ES(B2)	ZENER D100E	
D21, 22		MTZJ11(B)	ZENER D100E	
D21, 22		R010ES(B2)	ZENER D100E	
D23, 24		HZS5.1S(B2)	ZENER D100E	
D23, 24		R05.1S(B2)	ZENER D100E	
D31 -35		HSS104A	D100E	

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No. 7

Ref. No. 参照番号	Address 位置	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕向備考
C69, 70		CK45FF1H103Z	CERAMIC 0.010UF Z	
C71 -74		CK45FB1H221K	CERAMIC 820PF K	
C79, 80		CQ93FNG1H821J	MYLAR 3300PF K	
C83, 84		CK45FB1H332K	CERAMIC 0.010UF Z	
C88		CK45FF1H103Z	ELECTR0 330UF 16WV	
C89		CE04LW1C331M	CERAMIC 0.010UF Z	
C90		CK45FF1H103Z	CERAMIC 22PF J	
C91		SC45FCH1H220J	CERAMIC 0.022UF Z	
C92		CK45FF1H232Z	ELECTR0 0.22UF 50WV	
C93		CE04LW1HR22M	ELECTR0 10UF 50WV	
C94		CE04LW1H100M	ELECTR0 1.0UF 50WV	
C95		CE04LW1H010M	ELECTR0 1.0UF 50WV	
C98		CE04LW1H010M	ELECTR0 1.0UF 50WV	
C100		SC45FS1H470J	CERAMIC 47PF J	
C101, 102		CE04LW1H3R3M	ELECTR0 3.3UF 50WV	
C103, 104		CE04LW1H100M	ELECTR0 10UF 50WV	
C105, 106		CK45FB1H471K	CERAMIC 470PF K	
C107, 108		CK45FCH1H220J	CERAMIC 22PF J	
C109-112		CE04LW1C102M	ELECTR0 1000UF 16WV	
C117		CE04LW1A101M	ELECTR0 100UF 10WV	
C118		CK45FF1H103Z	CERAMIC 0.010UF Z	KRP XTE
C119, 120		C90-3559-05	ELECTR0 4700UF 56WV	YMI
C121, 122		C90-3561-05	ELECTR0 4700UF 50WV	
C121, 122		CE04LW1V102M	ELECTR0 1000UF 35WV	
C123, 124		CE04LW1C102M	ELECTR0 1000UF 16WV	
C125, 126		CE04LW1A101M	ELECTR0 100UF 10WV	
C127		CQ93FNG1H104J	MYLAR 0.10UF J	
C129, 130		CE04LW1V102M	ELECTR0 1000UF 35WV	
C132		CE04LW1H471M	ELECTR0 470UF 50WV	YMI
C134		CE04LW1J471M	ELECTR0 470UF 63WV	KRP XTE
C134		CE04BW1V221M	ELECTR0 220UF 35WV	
C135, 136		CQ93FNG1H104J	MYLAR 0.10UF J	
C137, 138		C91-1422-05	MP 0.1UF 250WV	YMI
C140-143		CK45FF1H103Z	CERAMIC 0.010UF Z	KRP XTE
C145		CK45FB1H102K	CERAMIC 1000PF K	
C146		CE04LW1E101M	ELECTR0 100UF 25WV	KRP YMI
C147		CE04LW1H100M	ELECTR0 10UF 50WV	KRP YMI
C148		CE04LW1H47M	ELECTR0 4.7UF 50WV	
C150		CK45FF1H103Z	CERAMIC 0.010UF Z	
C151-154		CQ93FNG1H104J	MYLAR 0.10UF J	
C155, 156		CQ93FNG1H682J	MYLAR 6800PF J	
C157, 158		CK45FB1H102K	CERAMIC 1000PF K	
C159		CK45FF1H103Z	CERAMIC 0.010UF Z	
J2		E63-0046-15	PHONO JACK(4P) AUX/OMNI	
J3		E70-0045-05	LOCK TERMINAL BOARD SPEAKERS	
J4		E63-0116-05	PHONO JACK(1P) SUPER WOOFER	
J5		E03-0146-05	AC OUTLET	KRP YMI
J6		E03-0305-05	AC OUTLET	MIE
J7		E03-0109-05	AC OUTLET	T
J10		E58-0006-05	RECTANGULAR RECEPTACLE (19P)	
F1		F06-3027-05	FUSE (UL) (250V 3A)	KRP
F2		F05-1623-05	FUSE (SEMK0) (250V T1.6A)	XTE
F3, 4		F05-1623-05	FUSE (SEMK0) (250V T1.6A)	YMI

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PARTS LIST

No. 10

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Ref. No. 参照番号	Address 位置	New Parts 新部品	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
C22			C90-3253-05	ELECTRØ	
C23			C91-0769-05	CERAMIC	50WV
C24			C90-3214-05	ELECTRØ	0.01UF K
C25			CE04LW1A470M	ELECTRØ	100UF 6.3WV
C26		*	C93FPG1H103J	MYLAR	47UF 10WV J
C27			CE04LW1V220M	ELECTRØ	0.010UF J
C28			C91-0769-05	ELECTRØ	22UF 35WV K
C29			C93FPG1H823J	CERAMIC	0.02UF J
C30		*	C90-3214-05	MYLAR	0.082UF J
C31			C90-3214-05	ELECTRØ	100UF 6.3WV J
C32			C90-3253-05	ELECTRØ	1UF 50WV
C33			CC45FCH1H20J	CERAMIC	22PF J
C34			CC45FCH1H180J	CERAMIC	18PF J
C35			C91-0769-05	CERAMIC	0.01UF K
C36			C90-3214-05	ELECTRØ	47UF 6.3WV K
C37			C90-3226-05	ELECTRØ	100UF 16WV
C38			C91-0769-05	CERAMIC	100PF K
C39			C90-3214-05	ELECTRØ	0.01UF K
C40			C91-0769-05	ELECTRØ	47UF 6.3WV K
C41			C90-3214-05	CERAMIC	220PF K
C42			C91-0769-05	ELECTRØ	6.8UF 50WV
C43			C90-3214-05	ELECTRØ	0.010UF Z
C44			C91-0769-05	MYLAR	0.047UF J
C45			C93FPG1H223J	MYLAR	0.022UF J
C46			C93FPG1H102J	MYLAR	1000PF J
C47		*	E11-0262-05	MINIATURE PHONE JACK	
C48			E11-0234-05	PHONE JACK	
C49			L40-1011-17	SMALL FIXED INDUCTOR(100UH,K)	
C50			L78-0605-05	RESONATOR (8.38MHz)	
C51		*	L77-2111-05	CRYSTAL RESONATOR(32.768kHz)	
C52		*	R90-0802-05	MULTI-COMP	100KX10 J 1/4W
C53			R90-0500-05	MULTI-COMP	100KX6 J 1/4W
C54			R90-0854-05	MULTI-COMP	10KX5 J 1/4W
C55			R90-0482-05	MULTI-COMP	100KX4 J 1/4W
C56			R014N82E470J	RD	47 J 1/4W
C57		*	R31-0005-05	VARIABLE RESISTOR	DUAL SOUND
C58		*	R31-0004-05	VARIABLE RESISTOR	MIC MIXING
C59			S40-1064-05	PUSH SWITCH	
C60		*	T99-0554-05	ROTARY ENCODER	VOLUME CONTROL
C61			HSS104A	DIODE	
C62			MTZJ3.9(B)	ZENER DIODE	
C63		*	MTZJ3.9(B)	ZENER DIODE	
C64			R03.9ES(B2)	ZENER DIODE	
C65			HSS104A	DIODE	
C66			1SS131	DIODE	TE
C67			HSS104A	DIODE	TE
C68			1SS131	DIODE	X
C69			1SS131	DIODE	X
C70			1SS131	DIODE	X
C71			1SS131	DIODE	YMX
C72			1SS131	DIODE	YMX
C73			HSS104A	DIODE	
C74			1SS131	DIODE	
C75			MTZJ3.1(B)	ZENER DIODE	

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No. 9

* New Parts
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Ref. No. 参照番号	Address 位置	New Parts 新部品	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
D31			1SS131	DIODE	
D32		*	MTZJ3.2(B)	ZENER DIODE	
D33			R08.2ES(B2)	ZENER DIODE	
D34		*	MTZJ15(B)	ZENER DIODE	
D35			RD15ES(B2)	ZENER DIODE	
D36			HSS104A	DIODE	
D37			1SS131	DIODE	
D38			NJ7J313AL	ANALOGUE IC	
D39			TC9164N	IC(16CH BILATERAL SELECTOR SW)	
D40			NJM2058D	IC(OP AMP X4)	
D41			NJM4565D-D	IC(OP AMP X2)	
D42			UPC1853CT-02	ANALOGUE IC	
D43			NJM2058D	IC(OP AMP X4)	
D44			TC4052BP	IC(4CH MPX/DE-MPX)	
D45		*	XRU4052BC	MOS-IC	
D46			NJM4565D-D	IC(OP AMP X2)	
D47			NJM2058D	IC(OP AMP X4)	
D48			TA78057S	IC(VOLTAGE REGULATOR/+5.75V)	
D49			NJM4565D-D	IC(OP AMP X2)	
D50			2SC1845(F,E)	TRANSISTOR	
D51			2SA992(F,E)	TRANSISTOR	
D52			2SC2878(B)	TRANSISTOR	
D53			2SC1845(F,E)	TRANSISTOR	
D54			2SA1175(F,E)	TRANSISTOR	
D55			2SA933S(Q,R)	TRANSISTOR	
D56			2SC1845(F,E)	TRANSISTOR	
D57			2SA992(F,E)	TRANSISTOR	
D58			2SD2493	TRANSISTOR	
D59			2SB1624	TRANSISTOR	
D60			2SC4137	TRANSISTOR	
D61			2SB1370	TRANSISTOR	
D62			2SB1375	TRANSISTOR	
D63			2SD2012	TRANSISTOR	
D64			2SD2061	TRANSISTOR	
D65			2SA992(F,E)	TRANSISTOR	
D66			2SC2003(L,K)	TRANSISTOR	
D67			2SC1845(F,E)	TRANSISTOR	KRPMI
D68			B30-2463-05	LED	
D69			B30-2462-05	LED(GRN)	
D70			CE04LW1V47M	ELECTRØ	4.7UF 35WV
D71			C91-0729-05	CERAMIC	22PF J
D72			C90-3242-05	ELECTRØ	4.7UF 35WV
D73			C91-0745-05	CERAMIC	20PF K
D74			CE04LW1H010M	ELECTRØ	1.0UF 50WV
D75			CK45FB1H102K	CERAMIC	1000PF K
D76			C90-3242-05	ELECTRØ	4.7UF 35WV
D77			CE04LW1H010M	ELECTRØ	1.0UF 50WV
D78			C91-0729-05	CERAMIC	22PF J
D79			CE04LW1H010M	ELECTRØ	1.0UF 50WV
D80			CE04LW1C470M	ELECTRØ	47UF 16WV
D81			C91-0729-05	CERAMIC	22PF J
D82			CK45FF1H103Z	CERAMIC	0.010UF Z

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PARTS LIST

No. 11

x New Parts
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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名 / 規格	Desti- nation 仕 向	Re- marks 備考
D51			R05.1ES(B2)	ZENER DIODE	YMI	
D52			HSS104A	DIODE	YMI	
D52			ISS131	DIODE		
E01		*	10-BT-144CK	INDICATOR TUBE		
IC1		*	M36197MA-074FP	MI-COM IC		
IC2			M66310FP	MOS-IC		
IC3			XP-1091ECP	IC(OE FILTER)		
IC4		*	S-806E-Z	ANALOGUE IC		
IC5 ,6			NJM4565D-D	IC(OP AMP X2)		
IC5 ,6			XRA15218-DX	IC(OP AMP X2)		
Q1			2SC4038(Q,R)	TRANSISTOR	YMI	
Q2			2SA1175(F,E)	TRANSISTOR	YMI	
Q2			2SA933S(Q,R)	TRANSISTOR		
Q3 -6			2SC4038(Q,R)	TRANSISTOR		
A1			W02-1174-05	ELECTRIC CIRCUIT MODULE		
A1		*	W02-1191-05	ELECTRIC CIRCUIT MODULE		

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A-E5/L

SPECIFICATIONS

A-E5

FM Tuner section

Tuning frequency range	87.5 MHz ~ 108 MHz
Sensitivity (IHF)	13.2 dBf (1.2 μ V at 75 Ω)
Signal to noise ratio at 1 kHz	
MONO	75 dB (65 dBf input)
STEREO	68 dB (65 dBf input)
Selectivity (IHF \pm 400 kHz)	50 dB
Stereo separation (IHF at 1 kHz)	40 dB
Frequency response	30 Hz ~ 15 kHz + 0.5 dB, - 3 dB

AM Tuner section

Tuning frequency range	
9 kHz step	531 kHz ~ 1,602 kHz
10 kHz step	530 kHz ~ 1,610 kHz
Usable sensitivity	12 μ V / (500 μ V / m)
Signal to noise ratio	48 dB

A-E5L

FM Tuner section

Tuning frequency range	87.5 MHz ~ 108 MHz
Sensitivity (DIN at 75 Ω)	
MONO	1.0 μ V / 11.2 dBf
Signal to noise ratio	
(DIN weighted at 1 kHz, 65.2 dBf input)	
MONO	65 dB
STEREO	62 dB
Selectivity (DIN \pm 300 kHz)	64 dB
Stereo separation (DIN at 1 kHz)	40 dB
Frequency response	30 Hz ~ 15 kHz + 0.5 dB, - 3 dB

MW Tuner section

Tuning frequency range	531 kHz ~ 1,602 kHz
Usable sensitivity	12 μ V / (500 μ V / m)
Signal to noise ratio	48 dB

LW Tuner section

Tuning frequency range	153 kHz ~ 279 kHz
Usable sensitivity	22 μ V
Signal to noise ratio	45 dB

Amplifier section

Rated power output	60 W + 60 W (EIAJ, 6 Ω)
Total harmonic distortion	0.09 % (1 kHz, 1 / 2 Rated power, 6 Ω)
Signal to noise ratio	81 dB (IHF'66)
Input sensitivity / Impedance	
AUX	200 mV / 47 k Ω
MIC	3.5 mV / 22 k Ω
Output level / Impedance	
SUPER WOOFER PRE OUT	2.0 V / 600 Ω
OMNI PRE OUT	1.0 V / 1 k Ω

[General]

Power consumption	150 W
Dimensions	W : 270 mm (10-5 / 8")
	H : 205 mm (8-1 / 16")
	D : 293 mm (11-9 / 16")
Weight (net)	5.8 kg (12.8 lb)

Amplifier section

Rated power output	55 W + 55 W (DIN, 6 Ω)
Total harmonic distortion	0.09 % (1 kHz, 1 / 2 Rated power, 6 Ω)
Signal to noise ratio	81 dB (IHF'66)
Input sensitivity / Impedance	
AUX	200 mV / 47 k Ω
MIC	3.5 mV / 22 k Ω
Output level / Impedance	
SUPER WOOFER PRE OUT	2.0 V / 600 Ω
OMNI PRE OUT	1.0 V / 1 k Ω

[General]

Power consumption	150 W
Dimensions	W : 270 mm (10-5 / 8")
	H : 205 mm (8-1 / 16")
	D : 293 mm (11-9 / 16")
Weight (net)	5.8 kg (12.8 lb)

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KENWOOD follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.